

THE CULTIVATOR.

THIRD

To Improve the Soil and the Mind.

SERIES

VOL. VII.

ALBANY, NOVEMBER, 1859.

No. XI.

PUBLISHED BY LUTHER TUCKER & SON,

EDITORS AND PROPRIETORS.

ASSOCIATE ED., J. J. THOMAS, UNION SPRINGS, N. Y.

PRICE FIFTY CENTS A YEAR.

THE CULTIVATOR has been published twenty-five years. A NEW SERIES was commenced in 1853, and the six volumes for 1853, 4, 5, 6, 7 and 8, can be furnished, bound and post-paid, at \$1.00 each.

The same publishers issue "THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at \$2.00 a year. They also publish

Fall Plowing.

Two active workmen (we but repeat the saying) may be secured by any farmer for the winter at comparatively small expense. Fermentation and Frost, if his fields are plowed in autumn, will be busy with their culture through the inclement months, preparing food for plants and fitting the soil for their growth. Decomposition and disintegration are more or less active from fall to spring, and most soils, if properly plowed in autumn, are benefitted by the agents thus set at work. Let us offer some thoughts on the advantages and disadvantages of autumn cultivation, together with some directions for performing the work.

1. Low lands, such as are usually most benefitted by fall plowing, are generally in their best condition for the operation at this season of the year. Very often they are too wet to plow in spring until the season for seeding is far advanced, and the product is lessened by the delay, as well as the soil injured by working when too wet—becoming baked and lumpy, and requiring several years' time to recover its usual state. Heavy clays, especially, must be plowed when just right as to moisture, or they may almost as well remain without tillage. Heavy loams are often in the best condition for plowing in the fall, and can be sown or planted more seasonably, and with better results, if this operation is performed than if neglected.

2. Teams are generally in better condition for plowing in autumn; more inured to labor, and in less pressing demand for other employment on the farm. In spring a variety of work presses upon the attention of the farmer, which must be done as rapidly as possible, and it is well to "lighten the load" as far as may be by forethought and precaution.

3. Stiff, heavy soils, plowed in autumn, besides being in good condition for the work, undergo by the action of water and frost, a more thorough disintegration—clays, with proper provision for surface drainage, are

pulverized and crumbled; heavy loams and hardpan lands are acted upon in like manner, and with like beneficial results to the soil and succeeding crop.

4. Heavy and coarse sward land is better mellowed and subdued when the inverted sod is exposed to the action of the winter weather. Turned over late in the season, all vegetation ceases, the grass roots are frozen out, and many weeds share the same fate; in spring we find the land bare and mellow, ready with a thorough harrowing for any appropriate crop. The surviving weeds are less likely to sprout than if turned under in spring, and the turf is better prepared by its more advanced state of decay, for feeding the products which follow.

5. Though late fall plowing may have little time for fermentation or the decomposition of the vegetable matter buried by the plow; this decay still goes on to some extent, and by the time the growing crop needs it, usually arrives at the proper stage to supply its necessities. But the frost works with a will, and under proper conditions produces a mechanical amelioration of the soil scarcely possible under any other process.

6. Fall plowing disturbs the quarters arranged by various insects for passing the winter in the soil, thus destroying large numbers of these pests with their eggs and larvæ. This is a minor advantage, but one worthy of consideration, especially on lands infested with the larvæ of the May-bug or the wire worm.

The principal objections to fall plowing are the following:

1. The loss of that fresh, friable condition of soil, readily permeable to air and moisture, and the consolidation of the soil by long exposure to changing and stormy weather. This on light lands is a serious objection to autumn plowing. The same is true of any soil not provided with sufficient drainage to prevent water from standing for any time on or near the surface.

2. Another disadvantage is the loss of vegetable matter, and of its gases while decaying. The latter is but a small loss if the plowing is done late in the fall, but often on hill-sides, a large part of the soluble and floating organic matter is washed away by the heavy rains of winter and early spring-time. The soil is also consolidated by the same influences. Heavy swards thus situated would sustain less injury than light swards or stubble lands.

And lastly, a few hints on the manner of performing the work:

1. Do it thoroughly and in a workmanlike manner.
2. If the soil is at all liable to standing water in the winter, it should be plowed in narrow lands, and the

water-furrows carefully cleared and free outlets provided, so that all surface moisture may at once drain away. Unless this is attended to, it is of little use to plow low lands in the fall. If covered with water until spring, the frost has no mellowing effect, and very little decomposition takes place—the soil is only hardened by its exposure.

3. In fall plowing, the furrows should be deep and narrow, so as to expose as much surface as possible to the action of the frost, and it matters little how rough the work may be, provided the whole surface be inverted by the plow.

In conclusion, we would again urge the importance of preparing before winter sets in, as far as may be, for another year. We hear the complaint very frequently that late seeding has injured one or more of our spring crops, and that the most successful growth has been made upon lands plowed in the fall. Spring plowed land can also be given more attention, with the lessened demand upon the team and time, and all branches of farming feel the influence of the workmen who so cheaply and faithfully assist in forwarding the labors of the farm.

Fruit Grower's Society of Western New-York.

The autumn meeting of this Society was held at Rochester on the 22d ult., and occupied three full sessions in one day. The attendance was large. The subjects under discussion were Summer Pruning of the Grape; best new Grapes; best Pears, and the Smaller Fruits generally.

On the subject of *summer pruning the vine*, various opinions were advanced; but the prevailing expression was in favor of a moderate thinning and shortening of the shoots. Some of the most successful cultivators left at least five leaves above the bunch of fruit, and removed all small shoots which did not bear. W. B. SMITH, of Syracuse, in allusion to the opinion that "nature should take her course," said that this could not apply to artificial cultivation—that if a rich soil and manuring were adopted, a corresponding pruning must be resorted to. Without this, the whole will become a swamp of foliage, and the fruit would not ripen. E. W. HERENDEN, of Macedon, said, that as the sap was prepared by the leaves to form the fruit, a sufficient supply of leaves must be left to elaborate it. To prune severely in summer would injure the health of the vine. S. H. AINSWORTH, of Bloomfield, stated that his neighbor, Wilcox, had both pruned and unpruned vines—the former ripened its fruit at least *ten days* before the latter, and the fruit was far better—the unpruned vines formed a heavy mass of leaves and branches on the trellis four feet thick on the top, and they bore but few grapes, and these small, mildewed and worthless. The pruned produced at the rate of over 16,000 pounds per acre—the bunches fine, large and compact. Another member stated that the practice of laying down and covering the vines with two inches of earth for winter protection, had caused them to start earlier in spring, and mature the fruit sooner.

The Best Varieties.—Several members pronounced the *Hartford Prolific* the earliest, but its liability to drop its fruit was an objection. The *Diana* was highly commended by all, and it was unanimously recommended for general cultivation in Western New-York. The *Concord* follows soon after, but was generally regarded as far inferior in quality to the *Delaware* and *Diana*. The *Delaware* had been found to ripen from two to three weeks before the *Isabella*, and the *Concord* ten days to two weeks. The *Northern Muscadine* was

quite early, but dropped its fruit badly. P. BARRY recommended caution and thorough experience—the *Diana* was the only one of the new sorts which he had tested sufficiently. The *Clinton* grape was recommended for its vigorous growth, extreme hardiness, and long-keeping qualities—A. COVEY of Penfield, had kept them till February, and found them to improve in sweetness the longer they were kept. C. L. HOAG of Lockport, had found the *Diana* an excellent keeper. Dr. MINER of Rochester, considered the *Clinton* worthless as a table grape, as compared with the *Diana*, which always ripened, even when he never obtained a ripe *Isabella*. B. HODGE of Buffalo, remarked that the *Isabella* was often called ripe as soon as browned,—but that when fully ripe it was a dead black.

PEARS for general cultivation—Among the varieties especially commended were the following: *Louise Bonne de Jersey*, for its extensive productiveness (on the quince); *Tyson*, for its handsome growth and excellent fruit; *Virgalieu*, for its productiveness, and the great popularity and high price of its fruit; *Sheldon*, for its superb growth on the pear stock, and great excellence; *Bartlett*, for its admirable fruit and early bearing; *Belle Lucrative*, for its superb quality; *Sekel*, for its hardiness, great crops, and delicious flavor; *Flemish Beauty*, for its general perfection, needing, however, to be picked early; and the *Lawrence* and *Winter Nelis* as the best winter pears. The *Howell*, *Brandywine*, *Beurré Diel*, *Washington*, *Duchesse d'Angouleme*, *Giffard*, *Rostiezer*, *Anjou*, and *Easter Beurre*, were also highly recommended by different members. The only objection to the *Vicar of Winkfield* was its excessive bearing, and ordinary cultivators would not prune and thin sufficiently to make the fruit excellent. A. PARRY of Clarkson said that he found the fruit of the *Louise Bonne de Jersey* one-third larger when raised on dwarfs. P. BARRY remarked that although the *Duchesse d'Angouleme* was preferred as a dwarf, yet on pear stocks the fruit continues to improve as the tree grows older, for twenty or thirty years. S. H. AINSWORTH has a tree of the *Louise Bonne de Jersey* twelve years old, with a barrel of pears on it.

SMALLER FRUITS.—The *Black-cap raspberry* was highly recommended as one of the best and most desirable sorts—to be cultivated by horse-labor, in rows 8 feet apart, and 3 feet in the rows—to be properly thinned, and pruned 6 feet high. A wire trellis was recommended for canes. The *New-Rochelle blackberry* was regarded as the most productive sort, the soil to be rich, the richer the better, and well cultivated—the *Dorchester* less productive, but of higher flavor. Of *currants*, the *Cherry*, *White Grape* and *Victoria*, were especially recommended.

Maple Leaf-Cutter.

MESSRS. TUCKER & SON—I inclose a few specimens of the larvæ of some kind of an insect, or at least I suppose them to be; but while I write, I perceive some of them are thrusting their heads out and are moving along something like a mudturtle.

I discovered them upon the ground in a wood lot, and at first thought them to be leaves cut by the wood-bee, but as I went on, I saw so many I began to think they must be something else, and on examination found them to consist of four or six thicknesses of leaf, and a sort of worm in the center, but did not know till now that they could move around. There were great numbers of them on the ground, and what they are I do not know. E. L. HOLDEN. *North Clarendon, Vt.*

The insect alluded to by Mr. HOLDEN, is the Maple leaf-cutter, *Ornix Acerifoliella*, Fitch, figured and described in the *Trans. N. Y. State Agric. Soc.* for 1855, page 501. It is a small moth about the size of a house-fly, of a brilliant steel blue color, with an orange yellow head. It may be seen on and around maple leaves, the latter part of May. It drops its eggs on the leaves

and the worm from these eggs cuts two small circular pieces from the leaves and ties them together with fine silken threads, residing between them like a tortoise in its shell, thrusting out its head to feed on the leaves, and to move about over their surface. As it increases in size, it cuts larger pieces of the leaf and ties these over the first ones, till it finally has three pieces over its back and two or three beneath, the top-most one being nearly half an inch in diameter. Thus covered, when fully grown it drops to the ground, among the fallen leaves, where it lies through the winter, and changes to a winged moth in the spring.

Every summer, round holes are seen, cut in the leaves of the maple by this insect. In August, 1850, it was so numerous, and cut and destroyed the leaves in many places to such an extent, that the trees appeared as though scorched by fire; and it has again been almost as common the present year. A. F.

The New-York State Fair.

Nine years ago there was held near this city the Tenth Exhibition of the N. Y. State Agricultural Society. By reference to the editorial account of it published in the *CULTIVATOR* of the succeeding month, it appears that in the amount of receipts and number of entries its success was greater than that of any of the Society's previous Shows. Rains preceded the opening, and occurred during one night, but the weather was generally favorable. The Treasurer reported the pecuniary result at \$10,465.61, but it should be remembered that the price of admission was then 12½ cents, instead of 25, as at present. "The horses and most of the cattle were stationed in sheds provided for them." There were 286 entries of the former, 475 of the latter, and 567 of sheep.

The following paragraphs, then written, are as true at this time as they were in 1850; and if we republish them now, it is because we think we may perceive among the numerous changes in the interval that has elapsed, a prevailing disposition to regard the value of our Agricultural Shows as resting upon no higher basis than the magnitude of the prizes they bring to one set of exhibitors, the publicity they give to the wares of others, the enjoyment they afford to those who attend them for pleasure, and the balance they leave in the treasury of the Society holding them. All these ends, however important, should not lead us to forget that our Fairs were instituted as means toward the real and permanent advancement of our Agriculture:

"On the part of the competitors, the principal benefit is not the taking of prizes; it is the opportunity of bringing their animals or articles prominently to the notice of thousands of persons to whom they would otherwise never be known. The objects are not only seen, but they are compared, and by comparison, their relative defects or excellencies are made apparent. It is in this way, only, that correct knowledge can be obtained. A farmer who breeds any kind of live stock can form no safe opinion of its actual value without comparing it with other stock of the same breed. So, too, of the mechanic, in reference to his various productions; and in every branch of industry, improvement can only be estimated by comparison.

"Nor is the advantage of comparison of less consequence to purchasers than producers. In procuring a horse, a cow, a yoke of oxen, or a plow or other implement or article, it is, of course, desired that it should possess the properties which would fit it most perfectly for the purpose to which it is to be applied; and by having side by side the various descriptions, a discriminating eye is able to select the best, with almost infallible certainty. These advantages are distinct and independent of the awards of premiums. The people, so far as they have the opportunity of seeing for themselves, generally form their own opinions, and are but little influenced by the decisions of others."

Last week, upon the same grounds occupied in 1850,

the Society's Nineteenth Exhibition took place. Of it we may say, as of its predecessor, that it has surpassed in some respects all that have gone before it. The nine years have by no means been unfruitful in improvement. The receipts have risen from less than ten thousand five hundred dollars, to over *eighteen thousand*, and the entries this year number no less than three thousand five hundred and fifty-one—including 508 entries of Horses, 362 of Cattle, and 604 of Sheep. The custom at the beginning of staking out the cattle over the field or under the trees, like the stock at a Mexican ranch, had given way some years ago to a partial provision of sheds, but every animal on exhibition this year was under a roof. Nothing in fact which the writer has seen at home or abroad, in the arrangement of the stalls—either as regards the comfort of the animals or the convenience of the spectator—was superior to that adopted here.

The Show itself was in no respect one that New-York need wish to disown—an opinion expressed, unanimously we think, by the numerous visitors present from other states and her Majesty's dominions. If the *Cattle* were not out in so great force numerically, as they have sometimes been, they never formed a more prominent feature. The chief breeds were all represented by choice animals. Our best breeders of Short-Horns, generally, did all they could to prove that allegations of tenderness and deterioration in American ownership, are unfounded. The Devons fully maintained the rank they have occupied before; the Herefords were in good force, and the show of Ayrshires and Alderneys was every way creditable. *Poultry* were so well and so largely shown, that few professed "Poultry Exhibitions" would compete with the turn-out here, and the building devoted to the purpose became an important part of the general whole. *Fruit* was wonderfully good. All the Mechanical portion of the Exhibition was excellent, embracing both *Farm Implements* and *Machinery* of various kinds. One of the best features in the exhibition, too, was the show of *Sheep* in all three of the old divisions, while the Shropshires were made into a new and separate class. There was a little deficiency in the *Dairy* department. The *Horses* were out in large numbers, but included less merit than was expected. Everything went on smoothly. The buildings were all well put up, most commodiously arranged, and properly adapted for their respective purposes. There had been some feeling as to the exclusion of carriages from the grounds. This is a question, however, on *both sides* of which much may be said. The general satisfaction with which the results of the Show appear to have been regarded, will have the influence of strengthening the opposition on the part of the Society to the admission of vehicles. With fine weather, it has been shown that the public interest in a purely agricultural exhibition, manifests a gratifying increase. The past week saw no "trials of speed." The Society having never had recourse to a horse mania, or to any side issues to attract attention to her shows, stands forth to represent the rural interests of the state. For the farm, she points to implements and modes of culture; for the stock-yard to improvements in domestic animals of *all races*; for the garden to all that is useful and ornamental in fruits and flowers and vegetables; for the dairy, the housewife, the mechanic and the manufacturer, to whatever, by promoting their several ends, may tend to increase the general prosperity and comfort. All these several ob-

jects are objects of permanent utility and interest. Balloon ascensions, trotting matches, and catch-penny "elephants," of every kind, may "draw" during their day. It is no more than the experience of the past nine years has abundantly taught us, that every Body instituted for the promotion of Agriculture, should avoid descending to other and lower ways of gaining a temporary popularity.

PREMIUMS ON STOCK

Awarded at the Fair of the N. Y. State Agricultural Society at Albany, October, 1859.

SHORT-HORNS—BULLS.

Best Bull, 3 years old and upwards, John R. Page, Sennett, "Hiawatha,"	\$25, Silver Medal to breeder.
2d do., Wood & Eastman, Woodville,	\$15
3d do., Simeon Leland, New Rochelle,	5
Best Bull, 2 yrs. old, A. J. Becar, Smithtown, Suffolk,	20
2d do., A. M. Underhill, Clinton Corners, Dutchess Co.,	10
3d do., W. M. Bullock, Normanskill, Albany Co.,	5
Best Bull, 1 year old, Samuel Thorne, Thornedale, "2d Duke"	15
2d do., Samuel Thorne, Thornedale, "3d Duke,"	10
3d do., Wm. Lape, Crescent, "Lape's Hero,"	5
Best Bull Calf, John B. Garrett, Salina, "Pilot,"	5
2d do., D. Thos. Vall, Troy,	Trans. and 3
3d do., Wm. H. Slingerland,	(Discretionary.)

SHORT-HORNS—BULLS, (IMPORTED)

Best Bull, 3 years old and upwards, Samuel Thorne, Thornedale, "Grand Turk,"	\$25
--	------

DISCRETIONARY.

Hurst, Slingerland and Bullock, "Neptune,"	Dip.
--	------

SHORT-HORNS—COWS

Best Cow, 3 years old and upwards, Samuel Thorne, Thornedale, "Miss Gwynne,"	\$25, and S. M. to breeder.
2d do., Saml. Thorne,	\$15
3d do., W. H. Slingerland, Albany, "Minnie,"	5
Best Heifer, 2 years old, S. Thorne, "Favorite"	20
2d do., S. Thorne, "Gertrude,"	10
3d do., Wm. Kelly, Rhinebeck, "Myrtle,"	5
Best Heifer, 1 year old, S. Thorne, "Lady of Oxford,"	15
2d do., S. Thorne, "Princess of Oxford,"	10
3d do., Wm. Kelly, "Miss Wiley, 8th,"	5
Best Heifer Calf, Hurst, Slingerland and Bullock, Albany, "Florence,"	5

SHORT-HORNS—COWS, (IMPORTED.)

Best Cow, 3 years old and upwards, S. Thorne, "Lallah Rookh,"	\$25
Commendatory notice of the herd of Col. Lew. G. Morris.	

DEVONS—BULLS.

Best Bull, 3 years old, J. Freemyer, Fulton,	\$25
and Silver Medal to breeder.	
2d do, 3 years old and upwards, E. Outley, Phelps,	15
3d do, J. A. Carey, Clinton, "Orphan Boy,"	5
Best Bull, 2 yrs old, E. G. Faile, W. Farms, "Huron,"	20
2d do, C. S. Wainwright, Rhinebeck, "Sagamore,"	10
3d do, Webb & Rogers, Watertown, "Neptune,"	5
Best Bull 1 yr old, E. G. Faile, W. Farms, "Cayuga,"	15
2d do, Joseph Hilton, New-Scotland, "Empire,"	10
3d do, O. Howland, Auburn, "Rover,"	5
Best Bull Calf, C. S. Wainwright, "Sachem,"	5
2d do, E. G. Faile, "Powhattan,"	Trans. and 3
J. Freemyer, Fulton, his Bull, dropped March 10, 1859,	Trans.

DEVON BULLS—IMPORTED.

Best Bull, 3 years old, C. S. Wainwright,	\$25
---	------

DEVONS—COWS.

Best Cow, 3 years old and upwards, C. S. Wainwright, Rhinebeck, "Helena 7th,"	\$25, and S. M. to breeder.
2d do., T. Baker, Earlville, "Jenny Lind,"	\$15
3d do., C. S. Wainwright, Rhinebeck, "Helena 3d,"	5
Best Heifer, 2 years old, Joseph Hilton, New Scotland, "Belle,"	20
2d do., E. G. Faile, West Farms, "Eleanor,"	10
3d do., E. Outley, Phelps, "Matchless"	5
Best Heifer, 1 year old, E. G. Faile, West Farms, "Queen Ann,"	15
2d do., C. S. Wainwright, Rhinebeck, "Helena 12th,"	10
3d do., do, "Helena 11th,"	5
Best Heifer Calf, C. S. Wainwright, "Helena 15th,"	5
2d do., J. Hilton, New Scotland, "Grace,"	Trans. and 3

DEVONS—COWS, (IMPORTED.)

Best Cow, 3 years old and upward, C. S. Wainwright, Rhinebeck, "Kate Kearney,"	\$25
--	------

HEREFORDS.

Best bull, 3 years old and upwards, Eli P. Gardner, Schoharie (if he furnishes pedigree as required),	\$25
2d do do, Ambrose Bowen, Medina (Cayuga Chief),	15
Best bull, 2 years old, M. C. Remington, Sennett (Con- sternation),	20
2d do do, Ambrose Bowen, Medina (Don Juan),	10
Best bull, 1 year old, E. Corning, Jr., Albany, (Wash- ington),	15
Best bull calf, George Clark, E. Springfield,	5
2 do do, M. C. Remington, Sennett (Superior) Trans & 3	
Best cow, 3 years old and upwards, Ambrose Bowen, Medina (Young Matchless),	25
2d do do, Ambrose Bowen, Medina,	15
3d do do, M. C. Remington, Sennett (Venus),	5
Best heifer, 2 years, E. Corning, Jr., Albany (Flora 2d),	20
2d do do, Ambrose Bowen, Medina (Myrtle),	10
3d do do, E. Corning, Jr., Albany (Cora 2d),	5
Best heifer, 1 year old, E. Corning, Jr., Albany (Grace 3d),	15
2d do do, E. Corning, Jr., Albany (Cora 4th),	10
3d do do, M. C. Remington, Sennett (Stella),	5
Best heifer calf, George Clark, E. Springfield (Snow Bank),	5
2d do do, George Clark, (Geranium)	Trans & 3

HEREFORDS—IMPORTED.

Best cow, 3 years old and upwards, E. Corning, Jr., Albany (Cora 2d),	25
Best heifer, 2 years old, E. Corning, Jr., Albany	20

AYRSHIRES.

Best Bull, 3 yrs. old and upwards, E. P. Prentice, "Dun- dee 7th,"	\$25, and S. M. to breeder.
Best Bull, 2 years old, John C. Hitchcock, Poughkeepsie, "Duke of Ayrshire,"	\$20
2d do, Saml. Curtis, Flat Brook,	10
3d do, S. D. Hungerford, Adama, "Robt Bruce,"	5
Best Bull, 1 yr. old, do, "Highland Lad,"	15
2d Bull, 1 year old, H. D. Hawkins, Albany,	10
3d do., S. D. Hungerford, "Tiger,"	5
Best Bull Calf, Jas. Thompson, Ballston Spa, "Country Gentleman,"	5
2d do, do,	Trans. and 3
Best Cow, 3 yrs old and upwards, Brodie & Converse, Rural Hill, "Peach Blow,"	\$25, and S. M. to breeder.
2d do, S. D. Hungerford, "Little Dale,"	15
3d do, James Thompson, "Fancy,"	5
Best Heifer, 2 years old, Brodie & Converse, "Flora Temple,"	20
Best Heifer, 1 yr. old, S. D. Hungerford, "L. Dale, 2d,"	15
Best Heifer Calf, Geo. W. Harcourt, Albany,	5
2d do, S. D. Hungerford, "Princess,"	Trans. and 3

AYRSHIRES—IMPORTED.

Best Cow, 3 years old and upwards, S. D. Hungerford, "Challenge,"	25
Cow "Bessie," S. D. Hungerford,	Discretionary.
A. B. Converse, two beautiful Heifers,	Discretionary.

ALDERNEYS OR JERSEYS.

Best Bull, 3 yrs old and upwards, M. E. Viele, (Jersey) 25	
and S. M. to Breeder.	
Best Bull, 2 yrs old, H. S. Johnson, Poughkeepsie,	20
Best Bull Calf, Maurice E. Viele, (J. T. Norton),	5
Best Heifer 1 year old, M. E. Viele, (Violet),	15
Best imported Cow, 3 yrs and upwards, M. E. Viele, Albany, (Maria),	25

GRADE CATTLE—COWS.

Best Cow, 3 years old and upwards, Mather & Moore, Albany,	\$25
2d do, W. H. Slingerland, Normanskill,	15
3d do., James F. Converse, Woodville,	5
Best Heifer, 2 years old, Henry Cooke, Rhinebeck,	20
2d do., H. & F. Bowen, Coon & Tompkins, Medina,	10
3d do., Chas. E. Pease, Albany,	5
Best Heifer, 1 year old, E. Griffin, Clinton Corners,	15
2d do, Wood & Eastman, Woodville,	10
Best Heifer Calf, Wood & Eastman, Woodville,	5
2d do., L. Woodward, Saratoga,	Trans. and 3
Best Milch Cow, W. H. Slingerland, Normanskill,	20

WORKING OXEN, OVER FIVE YEARS OLD.

Best yoke of Oxen, T. Baker, Earlville,	\$20
2d do., Joseph Hilton, New Scotland,	15
3d do., W. H. Slingerland, Normanskill,	5

OXEN, FOUR YEARS OLD.

Best single yoke, E. Outley, Phelps,	\$15
2d do., A. Fitch, New Scotland,	10
3d do., Luther Comstock, Kirkland,	4

STEERS—THREE YEARS OLD.

Best single yoke, E. Outley, Phelps,	\$10
2d do., H. & F. Bowen, Coon and Tompkins,	8

3d do., Isaac Miller, Valley Falls, Trans. and 3
To boys under 16, for training yoke of Steers best,
Willis A. Winne, Schodack, Silver Medal.

STEERS—TWO YEARS OLD.

Best single yoke, Wood & Eastman, \$8

STEERS—ONE YEAR OLD.

Best single yoke, Wood & Eastman, \$6

2d do., P. S. Forbes, Bath, Rens. Co., 5

3d do., Wood & Eastman, Trans. and 3

FAT CATTLE—STALL FED.

Best Ox, 4 yrs and under 5, T. Doty, Clinton Corners, 12

Best Cow, 4 yrs and upwards, E. Sheldon, Sennett, ... 10

Best Heifer, 3 yrs old, G. H. & A. D. Gazley, Pleasant

Plains, 8

Note.—Thomas Kimber of Syracuse exhibited two Oxen, aged respectively 5 and 6 years—excluded by the Society rules from competition, on account of age. The Committee recommend some suitable token of appreciation of their merits.

Messrs. G. H. & A. D. Gazley exhibited one yoke of fine Oxen, excluded for same reasons above stated; and the Committee make the same recommendation.

FAT CATTLE—FED ON HAY AND GRASS.

Best Cow, 4 yrs and upwards, G. H. Charles, Albany, ... \$10

Best Steer, 3 yrs old, J. Wadsworth, Jr., Geneseo, ... 8

2d do., C. Wadsworth, Geneseo, 3

FOREIGN CATTLE.

Best Short-Horn Bull, 2 years and upwards, J. Snell,

Canada West, Dip. and \$15

Best Cow, to do, 15

Best Ayrshire Bull, 2 years and upwards, H. D. Bur-

gett, West Stockbridge, Mass., 15

Best pair of Working Oxen, out of State, W. R. Dun-

can, Ky., \$15

Second pair of Working Oxen, out of State, S. Black-

man, Vt., \$10

Best fat Ox, J. Van Alstyne, Ghent, 10

Best fat Steer, W. R. Duncan, Ky., 10

Best fat Cow or Heifer, C. F. Willis, Ky., 10

Class II--Horses.

FOR ALL WORK—STALLIONS.

Best stallion, 4 years and upwards, Geo. W. Adams,

Whitehall, \$25

2d do do J. Vandenberg, Rhinebeck, 15

3d do do Thomas North, Middlefield, 5

4th do do P. W. Deitz, Schoharie, Youatt.

FOR ALL WORK—MARES.

Best brood mare (with foal at her foot), 4 years and

upwards, Ira Blakeman, Greenbush, \$25

2d do do B. B. Kirtland, do, 15

3d do, M. J. Blessing, Albany, 5

4th do, Chas. A. Mott, Lansingburgh, Youatt.

HORSES OF THE MORGAN OR BLACK HAWK BREED.

Best Stallion, 4 years and upwards, Grove Bradley,

Meridian, \$25

2d do, A. W. Swift, New York, 15

3d do, Martin Deyo, Claverack, 5

Best Brood Mare, 4 years and upwards, R. W. Macy,

Chatham 4 Corners, 25

DRAUGHT.

Best stallion, 4 years and upwards, D. Case, Lockport

(Young Norman), \$25

2d do, James Boyle, Albany, 15

3d do, C. Scobie, Springport (Young Sampson), 5

4th do, S. A. Rogers, Jordan, Youatt.

Best pair of matched draught or farm horses, J. P.

Wiener, Lyons, 15

2d do, Jurian Winne, Albany, 10

3d do, C. Slingerland, N. Scotland (dis.), Youatt.

THOROUGH-BRED.

Best stallion, 4 years and upwards, J. S. Schermer-

horn, Schenectady (Peer), \$25

Best brood mare (with foal at her foot) 4 years and up-

wards, P. S. Forbes, Bath, Rensselaer county (Ma-

donna), 25

Best stallion, 3 years old, Alexander Bathgate, Morris-

ania (Cornet), 20

THREE YEARS OLD.

Best stallion, 3 years old, G. B. Alley, New Rochelle, ... \$20

2d do, E. Gazley, Clinton, Dutchess county, 10

3d do, Caleb Tompkins, Mamaroneck, 3

4th do, J. V. Storm, Dadd.

Best mare, J. Sutton, Warwick, 20

TWO YEARS OLD.

Best Stallion, 2 years old, H. Ainsworth, Philadelphia, ... \$15

2d do do E. H. Bassett, Chatham 4 Corners, ... 10

3d do do Chas. Duncan, West Troy, Dadd.

Best Mare, F. G. Vandenberg, Troy, 15

2d do Jas. G. Mott, Lansingburgh, 10

3d do A. A. Dunlop, West Troy, Dadd.

ONE YEAR OLD.

Best Stallion, 1 year old, Peter Van Wie, Bethlehem, ... \$10

2d do do F. M. Lawrence, Flushing, ... 5

3d do do Alex. Bathgate, Morisania, Dadd.

Best mare, Joseph Daniels, Bath, Rens. Co., 10

2d do Jas. G. Mott, Lansingburgh, 5

3d do M. J. Blessing, Albany, Dadd.

BEST PAIR MATCHED HORSES, 16 HANDS AND OVER.

D. T. Walbridge, \$15

2d do J. L. Treat, Auburn, 10

MATCHED HORSES—FOR ROAD OR CARRIAGE.

Best pair matched horses, 14 to 16 hands, E. Milbanks,

Bethlehem, \$15

2d do do L. Rosekrans, Clifton Park, 10

GELDINGS.

Best Gelding, E. Milbanks, Bethlehem, \$10

2d do H. Beals, "Cassius M. Clay, Jr.," 8

L. Rosekrans, Clifton Park, 3 years old gelding, 6

Seneca Dennis, Schaghticoke, best Mare, 3 years old, ... 6

SINGLE MARES.

J. R. Hemingway, Canaan, best 4 year old Mare, \$10

E. G. Buck, Fort Edward, second best, 8

SINGLE TROTTERS.

Charles Robinson, Dutchess Co., best, \$10

R. G. Clark, Argyle, second best, 8

Willie Hawley, best trained colt—[Discretionary], 5

FROM OTHER STATES AND CANADA.

Best blood Stallion, 3 years and upwards, T. G. Ayerigg,

Passaic, N. J., "Gov. Wright," \$15

Best brood mare do. H. L. Shields, Bennington, Vt., ... 15

Best stallion, horse for all work, 3 years and upwards,

T. M. Gillespie, N. J., "Arabian Marmaduke," 15

Best brood mare do. T. J. Wallace, Providence, R. I., ... 15

Best brood mare, 3 years and upwards, A. Jeffrey,

Canada West, 15

Best matched horses not under 16 hands high, T. G.

Ayerigg, New Jersey, 15

Best single mare, horse or gelding, in harness, C. S.

Haines, New Jersey, 10

DISCRETIONARY.

H. L. Shields, Bennington, Vt., (all work,) Brood

Mare, Dip.

JACKS AND MULES.

Chamberlain & Whittlesey, Aurelius, best Jack, \$20

W. J. Wheeler, Watervliet, best Jennet, 20

A. Strain, Albany, best pair Mules, 15

Class III—Sheep.

FAT SHEEP.

Best Fat Sheep, Long Woolled, 2 years and upwards,

G. H. & A. D. Gazley, Pleasant Plains, \$5

2d do. Robert Brodie, Smithville, 3

3d do. Jurian Winne, Albany, Morrell's Shep.

Best Long Woolled, under 2 years, Jurian Winne,

Bethlehem, 5

2d do. E. Ottley, Phelps, Ontario Co., 3

3d do. E. Ottley, Phelps, Ontario Co., Morrell's Shep.

Best Middle Woolled, 2 years and upwards, R. C. Der-

rick, Center Brunswick, 5

2d do. R. C. Derrick, Center Brunswick, 3

Best Middle Woolled, under 2 yrs, O. Howland, Auburn

5

2d do. O. Howland, Auburn, 3

Best Cross Breed, 2 years and upwards, H. Bowen, Jr.,

2d do. H. Bowen, Jr., Medina, 3

3d do. Jas. F. Converse, Woodville, Morrell's Shep.

Best Cross Breed, under 2 years, H. Bowen, Jr., 5

2d do. R. C. Derrick, Center Brunswick, 3

NOTE.—The Committee recommended to the favorable

consideration of the Executive Committee, two lots of

sheep in the above class entered after the Committee had

commenced their duties—one lot belonging to E. Ottley,

Phelps, Ontario Co., the other to John McDonald, War-

ren, Herkimer Co. They would have received Premiums,

if entered in time.

LONG-WOOLED.

Best Buck, 2 years and upwards, John Bettridge,

Riga, 10

2d do, do, G. H. & A. D. Gazley, Pleasant Plains, 8

3d do, do, John McDonald, Warren, 5

Best Buck, under 2 years, Jurian Winne, Albany, ... 10

2d do, do, G. H. & A. D. Gazley, Pleasant Plains, ... 8

3d do, do, James Bettridge, Riga, 5

Best pen 5 Ewes, 2 years and upwards, V. H. Hallock

Dover Plains, 10

2d do, do, G. H. & A. D. Gazley, Pleasant Plains, ... 8

3d do, do, John McDonald, Warren, 5

Best pen 5 Ewes, under 2 years, G. H. & A. D. Gazley, Pleasant Plains,.....	10
2d do, do, John McDonald,.....	8
3d do, do, Wood & Eastman, Woodville,.....	5
Best pen 3 Buck Lambs, G. H. & A. D. Gazley,.....	5
2d do, do, J. McDonald,.....	Morrell's Shep.
Best pen 3 Ewe Lambs, G. H. & A. D. Gazley,.....	5
2d do, do, G. H. & A. D. Gazley,.....	Morrell's Shep.

SPECIAL.

E. Ottley, Phelps, Special Premium, equal to 1st premium, \$10, his Ewes having been overlooked by the Committee.

MIDDLE WOOLED—SOUTH-DOWNS.

Best Buck, 2 years and upwards, Samuel Thorne,.....	\$10
Best Buck under 2 years, Samuel Thorne,.....	10
2d do. Samuel Thorne,.....	8
3d do. Samuel Thorne,.....	5
Best pen 5 Ewes, 2 years and upwards, E. Corning, Jr., Albany,.....	8
3d do. John H. Booth, Bethlehem,.....	5
2d Best pen 3 Buck Lambs, E. G. Cook, Ellishburgh,.....	Morrell's Shepherd.

Best pen 3 Ewe Lambs, John H. Booth, Bethlehem,..... 5

SHROPSHIRE DOWNS.

Best Ram, 2 years and upwards, Jacob Lorillard, New York,.....	\$10
2d do., C. Parsons, Riga,.....	5
Best Pen 5 Ewes, 2 years and upwards, J. Lorillard,.....	10
2d do., C. Parsons,.....	8
3d do., 1 year old, C. Parsons,.....	5
2d do.; Pen 3 Ram Lambs, do.,.....	Morrill's Shepherd.
3d do., Pen 3 Ewe Lambs, do.,.....	Morrill's Shepherd.

MERINOES.

Best Buck 2 years and upwards, J. Stickney,.....	10
2d do. Potter Baker,.....	8
3d do. W. H. Armstrong,.....	5
Best Buck under 2 years, J. Stickney,.....	10
2d do. Potter Baker,.....	8
3d do. John M. Percy,.....	5
Best pen 5 Ewes, 2 years and upwards, Geo. Brown,.....	10
2d do. N. P. Brown,.....	8
3d do. J. Stickney,.....	5
Best pen 5 Ewes, under 2 years, Potter Baker,.....	10
2d do. George Brown,.....	8
3d do. John M. Percy,.....	5
Best pen 3 Buck Lambs, J. Stickney,.....	5
2d do. George Brown,.....	Morrell's Shep.
Best Pen 3 Ewe Lambs, Geo. Brown,.....	5
2d do. W. M. Holmes,.....	Morrell's Shep.
Best Samples of Wool not less than 5 fleeces, George Brown,.....	Sil. Med.

SILESIAN MERINOES.

Best Buck, 2 years and upwards, Wm. Chamberlain Red Hook,.....	\$10
2d do., Wm. Chamberlain, Red Hook,.....	8
3d do., C. W. Hull, New Lebanon,.....	5
Best Buck under 2 yrs, W. Chamberlain, Red Hook,.....	10
2d do., George Brown, Oak's Corners,.....	8
3d do. Wm Chamberlain, Red Hook,.....	5
Best pen 5 Ewes under 2 yrs., W. Chamberlain,.....	10
Best pen 5 ewes, 2 yrs. and upwards, Wm. Chamberlain,.....	10
2d do. George Brown, Oak's Corners,.....	8
3d do. Wm. Chamberlain, Red Hook,.....	5
Best pen 3 Buck Lambs, W. Chamberlain,.....	5
Best pen 3 Ewe lambs, W. Chamberlain,.....	5

FRENCH MERINOS.

Discretionary to O. Howland, Auburn,..... \$5

SAXONS.

Best Buck, 2 yrs. and upwards, T. V. Maxon, Adams,.....	\$10
2d do. George Dakin, North East,.....	8
3d do. C. W. Hull, New Lebanon,.....	5
Best Buck, under 2 years, C. W. Hull, New Lebanon,.....	10
2d do. T. V. Maxon, Adams,.....	8
3d do. George Dakin, North East,.....	5
Best pen 5 Ewes, 2 years and upwards, C. W. Hull,.....	10
2d do. George Dakin, North East,.....	8
3d do. C. W. Hull, New Lebanon,.....	5
Best pen 5 Ewes, under 2 years, C. W. Hull,.....	10
2d do. George Dakin, North East,.....	8
3d do. C. W. Hull, New Lebanon,.....	5
Best pen 3 Buck Lambs, George Dakin, North East,.....	5
Best pen 3 Ewe Lambs, George Dakin, North East,.....	5
2d do. George Dakin,.....	Morrell's Shep.

CROSS BREED, OF FINE WOOL—SAXONS AND MERINOES.

Best Buck, 2 years and upwards, E. G. Cook, Ellishburgh,.....	10
2d do. D. W. Curtis, Canaan,.....	8
3d do. O. Howland, Auburn,.....	5
Best Buck, under 2 years, O. Howland,.....	10
Best pen 5 Ewes, 2 years and upwards, Wm. Chamberlain, Red Hook,.....	10
2d do. D. W. Curtis, Canaan,.....	8

3d do. O. Howland, Auburn,.....	5
Best pen 5 Ewes, under 2 years, E. G. Cook, Ellishburgh,.....	10
Best pen 3 Buck Lambs, Geo. Brown, Oak's Corners,.....	5
2d do. Wm. Chamberlain,.....	Morrell's Shep.
Best pen 3 Ewe Lambs, W. M. Holmes, Greenwich,.....	5
2d do. C. W. Hull, New Lebanon,.....	Morrell's Shep.
Best Samples of Wool, not less than 5 fleeces, Wm. M. Holmes, Greenwich,.....	Sil. Med.

CROSS BREED, OF COARSE OR MIDDLE WOOL.

Best Buck, 2 years and upwards, John McDonald, Warren,.....	\$10
2d do. Zerab Rider, Coila,.....	8
3d do. Samuel A. Curtis, Canaan,.....	5
Best Buck, under 2 yrs., H. Bowen, Jr., Medina,.....	10
2d do. Robert Brodie, Smithville,.....	8
Best pen 5 Ewes, 2 years and upwards, H. Bowen, Jr.,.....	10
2d do. John McDonald, Warren,.....	8
3d do. Zerab Rider, Coila,.....	5
Best pen 5 Ewes, under 2 years, H. Bowen, Jr.,.....	10
2d do. John McDonald, Warren,.....	8
3d do. Samuel A. Curtis, Canaan,.....	5
Best pen 3 Buck Lambs, Austin Eastman, Belleville,.....	5
2d do. Robert Brodie, Smithville,.....	Morrell's Shep.
Best pen 3 Ewe Lambs, John McDonald, Warren,.....	5
2d do. H. Bowen, Jr., Medina,.....	Morrell's Shep.
Best Shepherd's Dog, Jacob Lorillard, New-York,.....	5

FROM OUT THE STATE.

Long Wooleed—Best Buck, John Snell, Edmonton, C. W.,.....	\$10
Best pen 5 Ewes, G. C. Hitchcock, Ashgrove, near Preston, Conn.,.....	10
Middle Wooleed—Best buck, J. C. Taylor, Holmdel, N.J.,.....	10
Merinoes—Best Buck, Jesse Hines, Brandon, Vt.,.....	10

SWINE—LARGE BREED.

Best Boar, 2 yrs. old and upwards, E. Wait, Walden,.....	\$10
2d do do S. D. Hungerford, Adams,.....	5
Best Boar; 1 year old, E. Griffin, Clinton Corners,.....	10
2d do do Wm. Richardson, Albany,.....	5
Best Boar, 6 months and under one year, Clark & Gillett, Smithville,.....	8
Best Breeding Sow, 2 years old and upwards, S. D. Hungerford, Adams,.....	10
2d do do Wm. Richardson, Albany,.....	5
Best Breeding Sow, 1 year old, A. M. Underhill, Clinton Corners,.....	10
Best lot of Pigs, not less than 5, under 10 months, Jas. F. Converse, Woodville,.....	8
2d do do Converse & Brodie, Woodville,.....	4

SMALL BREED.

Best Boar, 2 years old and upwards, A. M. Underhill, Clinton Corners,.....	\$10
Best Boar, 1 year old, J. H. Booth, Bethlehem,.....	10
2d do do Jas. L. Mitchell, Albany,.....	5
Best Boar, 6 months and under 1 year, Sam'l Thorne, Thornedale,.....	8
2d do do Wood & Eastman, Woodville,.....	4
Best Breeding Sow, 2 years old and upwards, Erastus Corning, Jr., Albany,.....	10
2d do do James L. Mitchell, Albany,.....	5
Best Breeding Sow, 1 year old, C. Rapp, Jr., Albany,.....	\$10
Best Sow, 6 months and under one year, Wood & Eastman,.....	8
2d do, Samuel Thorne,.....	4

MACHINERY.

Best Grain Drill, with apparatus for Distributing Grain, Seed, and Manure, John C. Stevens, Lee, Mass.,.....	S. M.
Best Improved Tile or other invention for securing the run of Water in Drains, F. M. Mattice, Buffalo,.....	\$5
Best Horse Power, (lever principle,) Dow & Fowler, Fowlersville,.....	8
2d do. G. Westinghouse & Co., Schenectady,.....	3
Best Horse Power (Endless Railway,) joint award to Wheeler, Melick & Co., and Emery Brothers, Albany, as equal in merit,.....	8
Best Clod Crusher and Roller, combined, Herald & Tompkins, Trumansburgh,.....	5
2d do. Anson Thompson, Glen's Falls,.....	3
Emery Bros., Albany, Cotton Gin for Horse Power, Dip. do. do, Horse Power Governor,.....	S. M.
Best Thrasher, with Cleaner and Separator, Dow & Fowler,.....	5
Best 2 horse Cultivator, Sayer & Remington, Ilion,.....	5
Best Corn Stalk and Hay Cutter (Cummings' Patent) Emery Brothers, Albany,.....	5
Allen Sherwood, Auburn, for Combined Reaper and Binder, and Binder separate,.....	Dip.
Best arrangement for unloading hay, by horse or steam power, C. E. Gladding, Troy, Pa.	3
2d do. Herald & Tompkins, Trumansburgh,.....	3
Best Portable Saw Mill, Pease & Eggleston,.....	8
Best Potato Digger, J. B. Parvin, Hightstown, N. J.,.....	3

Evening Discussions at N. Y. State Fair.

Culture of Grasses.

A large number of farmers met in the lecture room of Agricultural Hall, in this city, on Tuesday evening, the 4th inst., and were called to order by T. C. PETERS, Esq., of Genesee, after which Judge ROGERS, of Lewis Co., took the Chair as President of the evening.

Mr PETERS said that it was proposed to bring up the subject of Grasses for discussion, and spoke of the importance of the grass crop to the farmers of New York, and of the reliance placed upon it as a staple crop in all parts of the state. The crop this year, he thought would be far below the average, and in dairy districts he was convinced that three-fourths of the cows could not be wintered, owing to a light crop of grass.

Mr. J. STANTON GOULD, of Columbia Co., had given the study of grasses considerable attention, and made a lengthy statement in regard to their culture, based upon statistical returns. He thought our meadows produced more ten years ago than at the present day, and attributed their deterioration to the prevailing ignorance, in a great measure, among farmers in regard to the nature, uses and chemical relative value of the various species of grass. When so much depends upon this, it is surprising that no more careful attention is given to it. Animals he considered but machines for the farmer's use, and by means of which he could turn the products of his meadows and pastures into cash. He stated the annual value of the grass crop in this State to be \$60,000,000; in the New England States \$68,000,000, and in the United States over \$300,000,000! These figures show the value and importance of the crop. It should be the object of all farmers to become fully acquainted with the nature of the various grasses, before laying down their lands. Mr. GOULD said that 100 lbs. of timothy was equal in nutritive qualities to 300 lbs. of the sweet scented vernal grass, and this latter kind it was which gives the peculiar beautiful and delicate smell to our hay-fields. Some grasses which contain a large amount of carbon and hydrogen, go to make up the fat of an animal; others, composed largely of nitrogen, form muscles; while another variety goes to give warmth to the body in the form of hair. He thought that pure chemistry was not reliable in giving information in regard to the value of grasses, and would suggest to the farmers that the trial be made at their own mangers; first, by weighing an animal when put up to one kind of grass for feed, and also by weighing the hay given, and then changing to other kinds of grasses and noting the result. In seeding down meadows he thought it should be a rule to seed down with a great variety of seeds, as it was well known that large numbers would die, and that only a certain number of seeds would grow in a given area. It had also been demonstrated that only two seeds of blue grass would grow upon a square inch of ground; but by sowing in this space timothy, and also by multiplying the kinds the whole ground would be filled up, and five or six different varieties grown upon a square inch. He would also recommend to sow such seeds as come into flower at the same time. In regard to the average product per acre, he thought it was greater in the southern than in the northern part of the State.

In regard to the state of land for the grass seed, he thought it would pay extremely well to obtain as fine a tilth as possible, and cover the seed but lightly. One-eighth of an inch was a sufficient depth, while grass seed would fail to germinate if covered to a depth of one inch. The practice of harrowing in grass seed he considered destructive to the crop, but if it must be harrowed, it should be done very lightly. If possible

grass seed should be sown just before a rain, and leave that to make the necessary covering. Lime as an application to land, would be improved in value if slacked in water considerably salt. In conclusion, Mr. GOULD referred to draining and irrigation, as the best and most practical means for the improvement of meadows, and referred to the facts that 6,000 feet of the water of the Rhone, which was carried away in sewers, contained enough value to produce an ox; and that by this means of irrigation the meadows of Edinboro' had been made to produce 25 tons of hay per acre.

Mr. PETERS spoke of the lands of Long Island, commonly known as the "barrens," and thought there was no better land on the continent than that in the vicinity of Hempstead. He thought one great advantage of that locality, was owing to the fact of the atmosphere and the heavy dews, as in most seasons of the year the dews are so heavy as to drop from the eaves of the houses.

Ex-President McCoux, from Queens Co., was called upon to give a statement of the general system of farming in that county. He stated that they first plowed up a pasture or grass field for a crop of corn, manuring it before it was plowed, with a good coating of stable manure. It was seldom that manure was applied in the hill. Corn would no doubt obtain a quicker growth thus manured, but would not fill out so heavily. After the corn is harvested the land lies until spring, when it is again plowed and sowed with oats; sometimes, however, potatoes were substituted for oats in this case. When this crop is taken off in the fall it is again plowed for wheat, manure being applied before the operation. The land is rolled both before and after being sowed. Grass seed is sown after the last harrowing. Eight quarts of timothy seed is used per acre, and fields remain in grass for a number of years. Do not pasture meadows in the fall. Sometimes a top dressing of guano of 150 lbs. per acre is applied with good results. The soil is a sandy loam. He thought the average of hay to be two tons per acre.

Mr. MARKS, of Onondaga Co., attributed the light hay crop the present season to the early frosts and the general severe drouth in May.

Mr. GEDDES said that more was produced in Onondaga county now, than at any former period, and the farmers were employing more skill in the cultivation of their farms. He stated that one-half of the land in the county never had an application of barn-yard manure, but was kept up solely by plaster and clover as a dressing. Their new meadows had produced well while the older ones had not. In sowing wheat he always left the ground as rough as possible, never applying a roller. Six quarts of grass seed, timothy, was used in the fall with wheat, and eight of clover in the spring.

Mr. LYON, of Lewis Co., thought the best time to cut timothy was when it was in the second blossom, before the seed had matured. Clover he would have cured in the cock, and cut when the dew was falling at night, at a period before the blossoms get dry, and when two-thirds of the flowers are ripe.

Mr. CLARKE thought the deterioration of our meadows was caused more by late mowing, and then having dry hot weather in the fall before the roots have time to get strengthened. If possible he would have all his hay cut and harvested from the 5th to the 20th of July. Canada thistles if allowed to go to seed, he was satisfied, would die out in five years.

Col. BREWER, of Tompkins Co., considered 75 lbs. of hay cut green, worth more than 100 lbs. cut when ripe. At all events grass should be cut before it has dropped its seed. He thought a ton of hay, cut when dead ripe, would not form a single pound of new flesh. Clover he had cured well by putting it in the mow with layers of straw, and considered it the very best hay for horses, sheep and milch cows. He had grown wheat on the same land seven years out of fourteen;

Tompkins county is fourteen hundred feet above tide water; he used one peck of clover seed per acre, put on the land about the first of April; he had renovated an old meadow by early cutting, not pasturing it in the fall.

One speaker stated that he had proved that timothy, if cut below the first joint, would die out.

It was considered that clover seed would do well if sown in the fall, if the winter was one in which a large body of snow laid upon the ground, and no frost occurred.

WEDNESDAY EVENING, October 5th.

Manures—Best Kinds—Best Modes of Application.

Attendance large—Hon. ZADOCK PRATT, took the Chair

Perhaps no subject could be presented to the farmers of this or any other State, which would bring out so many and such diverse opinions as the one for discussion this evening. In the following abstract of the evening's talk, we have endeavored to give the more important facts stated by the speakers, not reporting that talk which enlivened the discussion, but added nothing to our stock of practical knowledge upon the theme.

W. PLUMMER, Onondaga.—I dress my land with gypsum and clover, and find it does well; you may call it manure or not manure, as you please. I turn under clover and use it as a fodder. For thirty years this has been my course, and my land produces better now than ever before. In putting manure on to my land, I use from 20 to 25 wagon loads per acre; I think it best to plow the manure under; my rotation is, 1, corn, 2, barley, 3, wheat, and 4, grass, letting it remain in grass three or four years.

C. WINEGAR, Cayuga Co.—Make all the manure you can, use carefully all you make; plow under as soon as it is put upon the ground, and the quicker it is got into the ground after being made the better.

Mr. MOSELEY, Onondaga.—I employ the winter in spreading my manure upon the snow. This I think incorporates it with the soil, and the soakings from the manure go down into the land. I had a hard clayey knoll which was thus covered in winter, and the treatment rendered it soft and mellow. This method of application does not cut up the land, and there is more leisure in winter for the operation.

T. C. PETERS, Genesee.—I plow shallow, that is, I do not plow 8 or 9 inches deep. I have found that shallow plowing on light land does well for the first time, but at the second plowing I would go down deeper, completely loosening the sub-soil, but not turning it up. This furnishes a foundation for thorough and deep cultivation, going down by degrees. I have found where long manure has been plowed under in the spring, that straw so covered, has been found in almost a perfect state, after having laid there until plowing was again done in the fall. Manure should be applied near the surface, which I think will produce the best results.

LEWIS F. ALLEN of Black Rock, Erie Co., made some interesting remarks, in which he stated that any one rule would not apply to all soils, seasons and climates, in the application of manures. His was a grass farm of a clay loam, and the application of dressing was applied on the surface in August and September. He thought well of keeping sheep on land and having the application of manure made in that way. In some further remarks, Mr. ALLEN gave an account of a visit to the farm of Mr. Patterson in Maryland, who 20 years ago, took the farm he now occupies, which had been sadly reduced by growing large quantities of corn and tobacco, so that it was not worth five dollars per acre. His first operation was to engage in burning lime which he put upon the land, covering it so that it resembled a fall of snow; he then harrowed and sowed grass seed. The land was not plowed, and

now produces nearly three tons per acre of good hay. Mr. Patterson always manures upon the surface.

Mr. LYON, Lewis Co.—Farm a sandy loam, and what would be called a "hungry soil." I plow in my manure as soon as it can be got from the barn, and plow from six to seven inches deep. Some of my land has been in grass from 10 to 15 years, and now produces well. I usually plow up once in six years.

CALEB WINEGAR, Cayuga Co.—Nature, it is true, puts her manure near the surface, and some people tell us to follow nature in this respect; but she does not do all, for she does not plow. If I had plenty of manure I would plow it in; if not, I would have it near the surface.

Mr. GOLDMAN, Orange Co., made some remarks in regard to the difference of soils and the different manure to be applied to them. He had found that where manure was plowed under it retained its virtue in the soil for several years.

Mr. COLLINS, Lewis Co., had upon his farm, land which had been in grass for fifty years, and was not plowed for that length of time. He now cut from it 3½ tons of hay per acre, and had always manured it upon the surface.

Mr. E. MARKS, of Onondaga, occupied a dry rolling farm upon the Onondaga shales. He had formerly plowed in the manure, and had often failed. He then changed his course, and now applies upon the surface for grass lands, in September or October, and is sure to find the effects of the dressing in whatever way the land is used after the application.

Mr. SYLVESTER, Wayne Co., always plows the manure under, that the ammonia may be retained for the use of the plant. A portion of his land in 1857, produced only five bushels of wheat per acre, and by manuring with stable manure and plaster, now raised over 80 bushels of shelled corn the acre. He had also practiced subsoiling to some extent, [which Mr. GEDDES and others thought was the means of the increased fertility of his land.]

GEORGE GEDDES stated that JOHN JOHNSTON was the first man to come out in print and say boldly that manure should be applied upon the surface, although many farmers practiced it before that. He thought it should be an object with farmers to make their grass grow and fill the land with roots, and then turn under this for manure. As for wheat, he thought it would winter better if drilled in. He made a lengthy series of remarks, in which he paid a high tribute to the teachings of Mr. JOHN JOHNSTON, saying that he thought more of him than of LIEBIG.

Mr. PLAISTED, of Kingston, Ulster Co.—Land does not leach manure. Take a barrel of sand and pour liquid manure into it, and the water will come through clear. My farm is a sandy loam; I plow from 6 to 9 inches deep, and when seeding to grass use half a bushel of Timothy seed to the acre, and cut four tons of hay from the same ground. Land must be *worked* more; poor or rich, manure or not, be sure to work the soil.

A. L. FISH, of Herkimer Co., has a dairy farm; of a dry soil, and keeps from 25 to 60 cows. Twenty years ago the land was so poor that no grass could be seen. He plowed and planted corn, manuring with artificial manure. Fed the corn to cows, and saved the solid and liquid excrements, which he spread broadcast and plowed under. When seeding he used a peck of Timothy and four quarts of clover, with some red-top. As the clover died out, the Timothy came on to take the place. In the space of 20 years he had thus increased the productiveness of his land four-fold. He thought there was an error in applying manure in a coarse state; as, if fine, the crops can best make use of it.

OLON ROBINSON, of the Tribune, asked how the farmer was to *begin* to manure and increase the productiveness of his farm. This was an important ques-

tion, and had not been stated by any one present. He would thank some one for the information.

Hon. Mr. PRATT.—In the Catskill region, where I reside, we make use of tan-bark and forest leaves. These are put into the hog-pen and barn-yard. In two months 50 cows will make a very large quantity of compost; this is plowed under in the spring, and with a top-dressing of composted hen manure, corn was planted. On four acres of corn, he had applied 100 bushels of hen manure.

T. C. PETERS stated the following facts in regard to a Dutch family of five, who had nothing at all to begin with but a small piece of land. A large tub was procured in which all the slops were saved. This was applied to land, spaded up and planted to cabbages, probably about one-quarter of an acre. Next they obtained a cow; with this, came greater means, and they were used; compost was made, and now (in the space of a few years) the one-fourth acre is fifty acres, well cultivated. Does this show how to begin?

Hon. A. B. CONGER, President of the State Ag. Society, made some very able remarks, in which he stated that he had hoped to gather from the evening's discussion a principle of philosophy which should govern the actions of the farmers of New-York in the application of manure to their land; but he did not rise for the purpose of entering the discussion, but to introduce to the farmers of the Empire State the Hon. JOSIAH QUINCY, Jr., of Massachusetts.

Mr. QUINCY was received with applause and spoke in substance, as follows:

I do not speak, thinking to instruct the farmers of New York. Fifty years ago my farm cut 20 tons of hay; it now cuts 300 tons. [Cheers.] This is due to the soiling system which consists in keeping cattle in stables. It makes a great saving of land where it is valuable—it makes a saving of fencing—it economises the food—the animals are kept in better condition and have greater comfort—a large amount of milk is produced and all the manure is saved. These are the benefits and advantages of the soiling system. Every inch of my land is under cultivation, and there are no waste spots. In regard to keeping cows, the manure of a cow is of equal value with her milk; one cow will produce in a year $3\frac{1}{2}$ cords of solid and the same of liquid manure; this composted with twice its amount of muck, would increase the amount to 21 cords of manure a year from one cow, the value of which, allowing the shrinkage to be 12 per cent, would amount to 150 dollars. The farms of France are all less than 5 acres each in size, and our farmers do not yet know how much can be produced upon small farms by good cultivation, with the application of the system of soiling. [Cheers]

How to Make Good Cider.

An old cider-maker gives in the *Rural New-Yorker*, some very sensible directions on this subject, from which we condense the following: Gather the apples, clean and dry, when ripe; grind them fine, (about 100 bushels at a time;) let the pomace remain in the vat from 24 to 48 hours, according to the season, until fermentation commences, producing little bubbles on the surface; then express moderately, or rather let it drain out. Use dry, clean straw to lay up the pomace; after the first run, the cider will be clear, high-colored, rich and mellow in taste.

* * A full barrel of cider, as it runs from the press, will shake down from two to four quarts—this should be well done by shaking and rapping the heads—then again filled to the full, bunged tight and placed in a cold cellar, and allowed to work or ferment through a spile or gimlet hole, (the froth working over.) Towards the last put in the spile gently, and raise it daily to let the wind puff out, putting it in quickly to keep the common air from it—continuing this as long as it requires vent. After this, keep the cask tight, and all is done but the drinking of good cider, never hard or sour—there is nothing to make it work and become so.

"Unfavorable Seasons."—Cold, Wet Springs.

Contingencies of the Season, Frosts, Drouths, and Floods; some provision possible against their effects—"The Cold, Wet Spring"—Character of Soils Earliest Fitted for Tillage—Drainage gives Heavy Soils a Like Character, and thus "Lengthens the Season"—Manure and Good Culture hasten the Growth and Increase the Product of our Crops.

In speaking some months since, (Co. Gent., March 10, '59,) of the difficulties and discouragements encountered by the farmer, we remarked of the losses resulting from the changes and contingencies of the weather—from frosts and backward springs—from drouths and floods—hinting that it was, to some extent, in the power of the cultivator of the soil to turn aside or provide against these causes of loss and failure. We now recur to the subject to present more in detail some thoughts, which we trust will commend themselves to the attention of our farming readers.

1. The "unfavorable season" often commences with a cold, wet spring, retarding the growth of grass and winter grains, hindering the culture of the soil, and delaying the sowing and planting of spring crops, as well as their early growth after commitment to the soil. What can be done in a case like this? Let us see. Does not Nature herself hint a remedy? Some soils are fit to work earlier than others—the frost leaving the same, and the ground becoming settled and comparatively dry very soon thereafter—these invariably are well-drained, friable soils, passing off the surplus water by filtration instead of evaporation. We may give this character to all our land by providing for their proper drainage, thus "lengthening the season" of labor and vegetation for several weeks, as remarked upon recently in this journal, (Co. Gent., Oct. 6, '59.) Then the work can be commenced much sooner, and be done in a much better manner, and the very soil itself is as much warmer as though situated one hundred miles southward. But the article referred to contains all that is now necessary on this point.

Drainage is one provision against the evils of a wet, backward spring; plenty of manure thoroughly mixed with the soil, is another safeguard against loss. It gives the crop a supply of food near at hand, at the time when it is best able to forage for itself—not having the amount and length of root requisite for reaching more distant supplies. An early and vigorous growth is important to every product, not only to hasten the maturity, but to enable it to withstand the various evils with which it must contend ere it is perfected.

Fall plowing, on some lands and for some crops, will allow the farmer to take advantage of the earliest possible moment for getting his seed into the soil, and thus provide another remedy against the evils of a cold, wet spring. Indeed, there are various methods of forwarding the work of the farm, among which we may mention, teams in good condition, implements always in repair, and of the best kind for our purposes, autumn plowing and manuring, and last, though far from least, a plan and a system wisely contrived and thoroughly carried out, so that nothing shall be left at loose ends, and neither time or material be allowed to waste. As we have before remarked, a clear head and a sagacious foresight may find ample exercise in carrying on the simple operations of the farm, and they are needed, and we believe rewarded, as well in the profession of agriculture as in most other pursuits.

We shall hereafter take up another characteristic of our climate—the summer drouth—and offer some thoughts on the best means of guarding against the evils of the same.

Steam Plows at Chicago.

CHICAGO, Sept. 17, 1859.

EDS. CO. GENT.—The interest of the Exhibition was greatly increased yesterday, by a trial of Fawkes' Steam Plow and of Water's Detroit Plow.

A committee of the Society, consisting of Mr. Dickie of Michigan, Mr. Johnson and Mr. H. L. Olcott of New-York, and one other whose name I do not recall, and the committee of the Illinois Central Railroad, took charge of the trial. After passing the engines twice around the track on the grounds, the committee riding on the Fawkes machine to test their feasibility as locomotives on the road on land—gave them a trial as plowing machines. Fawkes' has eight plows, and Waters' twelve. Waters' plows were tried in the show grounds, and cut its furrows 6 inches deep on an average, and the whole 19 feet wide—and the work was well done. Probably some arrangement must be made with the plows to this machine, so that it may be gauged at the will of the operator; as it now is, I think it must cut as it goes, at such depths as the inequalities of the soil may require; some of the furrows were *five* inches in some places, and in others where there were inequalities, from *seven to nine* inches.

The machines were taken out of the grounds upon the prairie, and an acre, or about that, assigned to each. Fawkes' plow performed its work on 193-100 acres, cutting eight furrows—about 10 feet in width in the whole. The time employed, was, I learn, 35½ minutes. The particulars of the whole operation will be given by the committee in their report. The trial upon the whole was very satisfactory—so far so, I think, to the committee of the Illinois Central Railroad, that they will pay Mr. Fawkes's the \$1,500 offered by them, and will introduce his machines along the line of their road.

Mr. Waters' plow unfortunately broke down on the prairie trial, much to the regret of all. My own opinion is that he will succeed—but as his machine was for the first time publicly tried here, being but lately finished, defects were expected which a series of trials alone will correct.

Enough, however, has been decided by the trial of Fawkes' plow—before the Illinois State Agricultural Society and here, to show that the work by the Steam Plow can be much more cheaply done than by the common breaking plow here in use. The committee of engineers made a report on the trial at Freeport, recommending to the Society to award the premium of \$2000, which, for reasons not yet given, so far as I know, the Executive Committee did not assent to. The committee give a detailed statement of the expense of Fawkes' Plow per diem, making the actual expense, including interest on the cost of machine, &c., to be \$16 12 per diem for plowing 25 acres per day. The cost of breaking up here by ordinary plows, is \$2.50 per acre, making \$62.50 for the same quantity of land—the Fawkes' Plow breaking up at an expense of 62½ cents per acre.

Whatever defects may now exist, and it is evident there are several, which when remedied will reduce even this amount, it is apparent that where lands like the prairies, free from obstructions, are to be found, there the Steam Plow will soon be witnessed superseding the ordinary team-work.

A machine from Chicago on the ground, costing \$600, for pulverizing stubble on cultivated land, I think promises well. Its operation by cutters pulverizes the soil

to any desired depth, and I do not see why the inventor may not attach plows to break up, by increasing perhaps, the power of the machine. He says he can easily do it, but his object was to furnish a machine that could be used after the sod is removed. Not having an opportunity of seeing it in operation, I cannot, of course, judge as to its practical merits, but it is certain *this* is what is specially needed—a substitute for the plow, that will *pulverize* the soil thoroughly and save the expense of the thorough work now required to break in pieces the furrows of the common plow.

Another machine on the ground, from New York I believe, which is constructed for spade culture, I regret escaped the notice of the committee until this morning, and had not been tried, but I hope may be during the day. The inventor has great confidence that he has the plan to do the work. He expects to be at the New-York State Fair, and if he is I trust the officers will give it a thorough trial.

The receipts of yesterday are said to have been over \$5,000, and it is hoped that the Society will leave Chicago with its treasury sufficiently replenished to enable it to go forward without pecuniary embarrassment.

Vermont State Fair.

The ninth annual fair of the Vermont State Agricultural Society, closed on the 16th inst., having continued four days. The beautiful grounds of the society at Burlington, where the fair has been held three times, improve from year to year in the completeness of arrangements and general convenience of the accommodations afforded to exhibitors.

The display of horses, which is the most prominent feature of the Vermont fairs, was this year uncommonly fine. Many horses of celebrity from our own state and from Canada, were on the ground, and added not a little to the attractions of the horse show. Ethan Allen, Plato, Columbus Jr and other noted horses, were present in most excellent condition. The display of breeding mares and colts was good, but not large.

There was a marked and decided improvement in the number of entries in classes of other stock than horses, and in the quality of the stock exhibited. The attention of Vermont farmers is going in the right direction, and with hopeful energy, in the matter of cattle, as the very creditable display of Devons, Durhams, and Herefords, full-blooded and grades, at Burlington proves. We noticed the fine Durham bull "May Duke," from the herd of George Vail, Esq., of Troy, on the ground for exhibition.

Among the sheep, Spanish Merinoes, Cotswolds, and South Downs, were the most numerously represented, and very fine specimens of each breed were abundant.

Thursday was the great day of the fair. Governor BANKS, of Mass., delivered a most happy and instructive address, on the history and influence of Industrial Exhibitions. Rapidly sketching the history of fairs or expositions, he opened to view their grand influence in the progress of the race, and urged their multiplication in number, and their continual widening in the character of their material.

On the stand with Gov. BANKS, were seated Major-General WOOL, Hon. GEO. VAIL, Hon. J. R. GIDDINGS, Ex.-Gov. FLETCHER, Hon. L. BRAINERD, in addition to the officers of the society.

The crowd, there being some 20,000 persons on the ground on Thursday, was remarkably quiet and orderly.

On the whole the fair was most encouraging, as an earnest of what the Vermonters are doing in all departments of agriculture.

John Johnston and his Farming.

MESSRS. EDITORS—And so your friend and valued correspondent, JOHN JOHNSTON, has sold the greater part of his finely improved and highly cultivated farm—has abandoned the field where the enthusiasm and restless activity of his nature has found full scope for exercise for so many long years, and where he seems to have enjoyed himself immensely in originating, carrying out, and reaping the fruits of those extensive improvements of which the readers of your papers have been so well posted from time to time. I have carefully read all of his communications that have come under my eye for many years, and on the whole consider them calculated to do more good than anything of the kind that I have met with in the course of my reading—in his case *theory* and *practice* seem to have perfectly harmonized, and while he has been reaping golden harvests at home, he has been urging his brother farmers to follow on and reap the fruits of his experience in their own fields and homes. Of course, his farming is a success, although I will say here that any man who was possessed thirty-five years ago of three hundred acres of good land in Central or Western New-York, and has managed to keep it until now, even if he has no more than made the two ends of the year meet, and has comfortable improvements, is in the possession of what can be converted into a handsome fortune, and has succeeded far better probably than nine-tenths of the men who have been engaged in the mercantile business during the same time. The rise of real estate has made many a man rich who would otherwise be poor—indeed I believe this remark will apply to the majority of the farmers of the country. Such men as Mr. JOHNSTON succeed anywhere and everywhere. There is no portion of our country so poor but that they “can make it go.” If he had come to the broad prairies of the west, he would now count his acres by the thousand—his cattle, his sheep, his hogs, his grain, and his dollars too, would all be counted by the thousands, just as hundreds of men of his stamp are doing now, and their number is increasing too. Farming is like every other business; it all depends upon the MAN. Mr. Johnston’s experience and success in thorough drainage and high manuring is particularly valuable to the farmers of older States; while the thoroughness that characterizes all his work commends itself to the whole country. No man can calculate the loss arising from the loose slipshod way of farming that is so prevalent at present.

There is one feature in his system, which is a very prominent one, and a main element in success, which, judging from the inquiries in your paper, is a source of much trouble to many readers—I allude to his buying stock and such large quantities of grain and oil meal to fatten it with. Now here is where the shrewdness “sticks out” most conspicuously, and where he gains an immense advantage over his more dull and less fortunate brethren. There is “a trick” in buying stock which but few possess, and must be absolutely essential where grain and feed bears so high a price as in Western New-York, unless a very high return can be depended on from the manures. His system is very far from being strictly self-supporting, being largely indebted to commercial shrewdness for its success, and those who would adopt it will do well to follow his ad-

vice—commence on a small scale and feel the way cautiously.

No one man can be a safe pattern for every other man to follow. Very few farms can be found requiring precisely the same course of management in detail; although agreeing in some points, yet they differ widely in others.

In arousing a spirit of inquiry, and leading men to think, all over the country, lies the great benefit which Mr. J. has conferred upon his brother farmers, and for which he deserves their lasting gratitude. Very few can follow directly in his footsteps, but many will be led to look about them, and out of the materials within their reach, and the peculiar surroundings belonging to each individual case, begin a course of improvement that shall result in lasting good to themselves and to their children after them. Farmers must *think, plan, contrive, read*, and cherish a *pride in their profession*, before we can expect to see any very great advancement in agriculture. Whenever the American farmer shall take the pride in his profession characteristic of the British land-holder, then may we expect to see a noble race for distinction, but as long as it is regarded as but the stepping stone to some political or other trifling distinction, or as the present shift for making a living, nothing will be done.

I sincerely hope that Mr. J. may yet live for many years, to aid by his counsel and advice many who are commencing in the work of improvement, and who are now largely indebted to him for the impulses that have started them. HAWK-EYE. Keokuk, Iowa.

Recipes for Lemon Pies.

Having noticed in Co. Gent., September 1st, recipes for Lemon Pie, numbers 1 and 2, I send numbers 3 and 4 by request of Mrs. D.

Lemon Pie, No. 3.

One large, fresh lemon, grated fine—the pulp rinsed in half a tumbler of water—yolks of 4 eggs, beaten thoroughly—6 tablespoonfuls of sugar—1 tablespoonful of flour, stirred with the egg—2 tablespoonfuls melted butter, all well beaten together—one crust. Bake until done. Then take the whites of 4 eggs, with three tablespoonfuls of sugar, well beaten—spread smoothly on pie—return to the oven until slightly browned.

Lemon Pie, No. 4.

One lemon, one teacup of sugar, one teacup of sweet cream well stirred. Bake with two crusts. Please try them. Mrs. C. S. D. Clifton Springs.

Cabbages for Milch Cows.

The *N. E. Farmer* recommends its readers to raise larger quantities of cabbages than they have before done, and make use of them as a feed for milch cows, to be given them late in the fall, when the grass is becoming dry and scant. He states that upon a small plot of ground adjoining the farm-yard, 700 head of the Flat Dutch cabbage have been raised, being planted four feet apart in the latter part of July. The average weight per head was twenty pounds, and one of them given to a milch cow at night would afford a good supper and keep up the milk remarkably.

Churning Milk for Butter.

The discussion on dairy farming, at the Syracuse State Fair brought out the agreement of the most experienced dairymen in the opinion that the butter was better, and could be longer preserved by churning the milk and cream together, than by churning the latter alone. When too distant from cities to allow of selling milk, butter making was considered the best product—more profitable than cheese.

No. XX.—The Parasitic Destroyer of the Curculio.

I am inclined to rank the Plum weevil or Curculio (*Conotrachelus Nenufar*) as the most important and worst injurious insect which we have in our country. Although the Wheat midge is at the present period causing a much greater amount of pecuniary loss than this insect, I cannot but think its career will be analogous to that of its predecessor, the Hessian fly, and that it will therefore in time become so fully naturalized and mastered by its parasitic destroyers, that it will cease to be the formidable evil which it now is. Unlike it, the Curculio is a native insect of our country, which has now been known upwards of a century, during all of which time it appears to have gradually multiplied and increased its forces without any cessation or intervals in its ravages. At first, in the correspondence between the botanists Collinson and Bartram, A. D 1746, it is spoken of as totally destroying the nectarines, whilst the plums were but slightly molested by it. But after a time it took the plums also. In my boyhood, the wild plum trees in my own vicinity were often well filled with fruit. But though many of these trees are still standing, and thrifty and young trees have also grown up, I have never since that time seen a ripened plum upon any of them. And now a large portion also of our cherries and apples are every year destroyed by this same insect.

Every reader is doubtless aware that the increase of most of our injurious insects is repressed by other insects, which attack and destroy them—every species probably having one or more of these destroyers, which are its most inveterate foes. Hitherto, however, no insect of this kind has been discovered as living at the expense of the Curculio. But we now have such an insect brought to our notice.

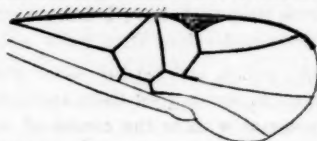
D. W. BEADLE of Saint Catharines, Canada West, sends to the COUNTRY GENTLEMAN several specimens of two insects, which he bred from the black knots of the plum tree, one a Curculio, the other a fly, which he suspects may be a gall-fly, (to which indeed it has a close resemblance,) and if so, as he observes, it may throw important light upon that mooted subject, the cause of these black-knot excrescences, as it is the habit of these flies to produce by their stings those singular balls and other swellings which we see on oaks and other trees and herbs. He desires information as to the name and true character of this fly. The specimens, placed in small vials of spirits, came to hand in an excellent condition for a satisfactory examination, and for future preservation in my cabinet. Their history is related by Mr. BEADLE, as follows:

"Early in June, I put some black knots, cut from the plum trees when they were quite green, into a glass jar half filled with clean moist sand, and tied a piece of thin muslin over the top. The Curculio beetles began to make their appearance in this jar early in July, and the flies about a fortnight later, and specimens of each kind have since been occasionally coming out up to this time, August 12th. The larvæ of the Curculio went from the knots into the sand, and there passed their pupa state, but I did not detect the flies until they assumed their present form."

These flies are a species which has never yet been described, at least by any author with which I am acquainted. To place this insect suitably upon record therefore, and in such a manner that persons who are not professed entomologists will be able to trace it out and identify it, should they chance to meet with it around fruit stung by the curculio, some details will be necessary, which to the general reader will be prosy and uninteresting. Such readers are therefore at liberty to skip over what follows, until they come to the two closing paragraphs of this article.

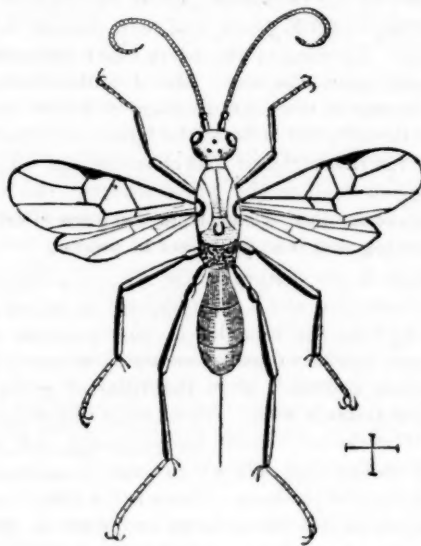
The internal parasites, as they are termed, consti-

tute much the largest and most important portion of those insects which are destructive to other insects. These are mostly four-winged flies pertaining to the order Hymenoptera, and resemble bees and wasps, though they are unable to pierce the human skin with their stings, and can therefore be handled with impunity. They form four very extensive families, named *Ichneumon*, *Bracon*, *Chalcis* and *Proctotrupes*. The insects of these families may easily be distinguished from each other as follows: The *Ichneumon* flies are mostly larger sized than the others, with their fore wings more traversed by veins. The *Bracon* flies are smaller and with fewer veins in their wings. The annexed cut represents



a wing of the fly sent us from Mr. Beadle, much enlarged. Here three veins are seen running lengthwise in the hind part of the wing. In the *Ichneumon* flies there is always a veinlet or cross vein running from the inner to the middle one of these veins, in addition to that at their anterior ends, and which is seen angularly bent in its middle in the figure. In the *Bracon* flies there is no cross vein connecting these longitudinal ones, except that at their anterior ends. By this mark these two families may always be distinguished. The two remaining families comprise very small insects, whose wings are destitute of veins, or very nearly so, the *Chalcis* flies having the antennæ elbowed or flail-shaped, whilst in *Proctotrupes* they are straight.

We thus find this fly to pertain to the *Bracon* family. In our books this family is usually divided into six sections. One of these sections is very peculiar. In it the abdomen or hind body is not divided into several joints, as we usually see it in insects, but consists of only a single piece in some, and in others one or two transverse lines are seen, separating it into two or three parts, instead of the six or seven, which is its customary number. In the fly before us we find the abdomen thus consisting of only three parts. This character with the further ones that these flies have a projecting tail-like sting, and the wings have only two apartments or cells along the outer side of the middle vein, on the posterior half of the wing, shows this fly to pertain to the genus named *Sigalphus*.



Curculio Parasite, greatly magnified; the cross lines indicate its natural length and width.

The most appropriate name for this fly will be the *CURCULIO PARASITE*, *Sigalphus curculionis*. Its body is sixteen-hundredths of an inch long, its wings being somewhat longer. It is black, with the mouth the un-

derside of the first joint of the antennæ, and the legs orange yellow, the hind feet and shanks, except at their base, being black, and sometimes the tips of the hind thighs also. Its abdomen is occupied with very fine dense longitudinal lines, leaving a smooth stripe along the middle of its second segment, and a large smooth space on the base of the third segment. The sting resembles a coarse bristle, projecting backwards about the length of the abdomen. It is composed of three threads, the central one orange and blackish towards its tip, and the lateral valves black. All the specimens sent are females. The males will be destitute of the sting, and will probably be of a smaller size.

From analogy we know with a considerable degree of certainty what the habits and proceedings of this fly will be. Soon after the eggs of the *Curculio* have hatched, and their young worms have commenced feeding, and mining their burrows in the interior of the fruit, this fly will make its appearance, walking around upon a plum or apple, with its antennæ stretched forward and applied to the surface, and rapidly vibrating, until it discovers where one of these worms is lying: for by some astonishing acuteness of the sense of feeling, or some other sense in the antennæ, the *Ichneumon*-flies and their kindred are able to detect the precise spot where a worm lies imbedded in the interior of wood, bark, or other substance, merely by touching these organs to the surface above it. Some writers have hence supposed that the antennæ are the organs of some sense wholly different from any of those possessed by the human race, and of which it is therefore impossible for us to form any conception. The sting of this fly, it will be noticed, is of the exact length requisite to enable it to pierce a plum or young apple to the depth at which the *Curculio* worm usually lies in it. This operation it performs, and having reached the worm, it punctures its skin and inserts an egg therein. It then withdraws its sting and flies to another plum, where the same operation is repeated. It perseveringly continues this work till its whole stock of eggs is disposed of. Thus a hundred worms, probably, are "ichneumonized," as it is termed, by each one of these flies. The egg hatching, the worm therefrom feeds in the interior of the *Curculio* worm, but without attacking any of its vital parts. It thus grows with its growth, until the enfeebled *Curculio* worm finishes feeding, and crawls from the fruit into the earth, perhaps with sufficient strength remaining to enable it to take on its pupa form before it expires. And finally, instead of a *Curculio* beetle, one of these parasitic flies comes from the pupa shell. Thus Mr. BEADLE saw nothing but *Curculio* larvæ in the black knots, and passing from them into the sand, and probably supposes he was so superficial and obtuse, that he failed to detect another kind of larvæ which were there to produce these flies, whereas the latter were all the time concealed from view, within the *Curculio* larvæ.

As to the black knots on plum and cherry trees, I here have space to say only a word. Having now carefully dissected and examined them, from their first commencement to their complete growth, I am perfectly assured they are a vegetable fungus, more analogous to the smut on corn, (those large masses of a black sooty substance which grow upon the ears, tassels, and sometimes directly from the stalks,) than to any other common thing with which we are familiar. Like many other fungi, these knots are a favorite abode of the *Curculio* worm, and some other insects, which have hence been supposed to cause these excrescences. But they sometimes grow to maturity without any of these insects finding them to nestle therein. ASA FITCH. September, 1859.

THE ILLUSTRATED PHRENOLOGICAL ALMANAC for 1860, has been sent us by its publishers, FOWLER & WELLS, New-York. It has its usual number of characteristic sketches and illustrations.

Harvesting and Curing Beans.

The "Best Way to Stack Beans" recently (Co. Gent. Sept. 15, '59) copied from the *Boston Cultivator*, is no doubt a very safe one, but it requires a good deal of labor and expense to put it into practice. A farmer with ten or more acres of beans to harvest, would require a great many trees for stack poles each year, and it would take a good many days' work to trim and set them. We have practiced an easier way of harvesting, and a more simple method of stacking when the weather seemed likely to be unfavorable, or the leaves required more curing than we liked to risk without that precaution.

In dry seasons, and with early and evenly ripened beans, simply pulling and placing in rows—say five rows thrown into one—to be left for a few days to dry in the sun, is all the cure required. When the latest pods has turned yellow, the pulling should be performed, and drawing in should take place as soon as the leaves are dry enough for threshing. We have seen them stand on scaffolds and in small mows at this time until mid-winter—when they thresh more easily than in warmer weather—and they come out in excellent order.

A former volume of the *Cultivator* (May, 1850, p. 165) contains an article on bean culture from Hon. S. Cheever, of Saratoga Co., who has had much experience with this crop. He lets the beans stand until they get so ripe and dry that they can be pulled one day and threshed out the next, and has often pulled in the forenoon and threshed in the afternoon of the same day, which avoids the risk of rain. He says that if heaped in the barn they soon get damp, and will not thresh without bruising—that they should be spread after threshing and cleaning until perfectly dry. Beans are usually fit to harvest about the middle of September. Frost does not hurt them after they are ripe. We have got into the habit of planting too late, in many instances, to make a good crop. The first week in June is late enough.

But to return to wet seasons and stacking beans, from our experience. When the autumn is rainy, it is almost impossible to harvest beans without stacking, and a few years ago we had a trial of our plan, with most satisfactory results. Our beans were pulled on dry days, and stacked around stakes, with the roots or the beans in the centre. They were laid in a neatly formed stack, about thirty inches across, and about seven feet high before settling. They cured well; the loss from exposure to the weather and shelling, was estimated at less than one bushel per acre, and the straw, placed in a mow when threshed, came out bright and dry feeding for sheep in winter.

The stakes used were some collected in removing a "staked and capped fence," and some prepared for that purpose. Using a crow bar to make the holes, they were set firmly in the ground, and then a few stones and a little straw put around the foot to keep the beans from the earth. Each person, as they pulled, kept their armful straight, and laid them with the roots to the center around the stakes. Last year we harvested ten acres, in good order, on this plan, and shall pursue it while we continue in the culture, in all cases where the beans are partially green, or when the weather is rainy and unfavorable. But unless the market demand is a little sharper, and prices run higher than of late years, we shall grow only to supply the home demand—for kitchen use and sheep feeding. For the latter purpose they are worth as much as corn, and are better suited to sheep than that grain or any other. When cooked, hogs may be fed upon them, and we think profitably. B. Niagara Co., N. Y.

The Highland Society's Dinner.

Our foreign correspondence has contained an account of the Exhibition at Edinburgh, last month, of the Highland and Agricultural Society of Scotland. At the dinner the health of strangers present was given, and the Duke of Atholl, who occupied the chair, called upon Mr. TUCKER, of the *Country Gentleman*, to respond.

Mr. TUCKER, in returning thanks for the honor, expressed his high appreciation of it, and said that the visitor in Scotland, from the United States, already felt acquainted with the Scotch. There they were known as successful, and respected in the learned professions, energetic and enterprising in business pursuits, thorough-going, systematic, and what was still better, money-making farmers, unfailingly contributing, whatever their position in life, a full share toward the prosperity with which that country had been favored. Knowing the national virtues, he trusted that he would not be the less qualified to appreciate them, as manifested in their native land—a land hallowed, as it might be justly said, by so many associations of poetry and romance, and the names of so many of whose sons were inherited as an imperishable legacy from the past. If it had passed into a proverb, that a Scotchman was never at home except when he was abroad, it might surely be added, that he never went abroad to find a home, without carrying with him the principles of thrift and of good faith toward both God and man. Allusion had been made to the fact that he was present as a delegate from the State Agricultural Society of New York, and occupying that position, it was both a duty and a pleasure for him to express the sentiments of sympathy and congratulation with which they regarded the advancement and present high position of the Highland Society—the senior among associations of the kind, and still apparently as full of vigor as though three quarters of a century had not passed since its foundation in 1784. During those seventy-five years, those who were better informed as to the relative position of the farmer then and now, could best say what progress had been made, but he thought there were no statistics to give all the details of the improvement brought about, to count the millions of pipe and tile that had been buried under the soil of Scotland, or the hundreds of engines that had in that period substituted the tireless energy of steam for the weary human arm, in thrashing out the more abundant harvests of the present generation; that could tell us how they had added to the actual area of their country, by adding to her capacity of profitable production. Still less could mere statistics enable us to estimate the additional comfort and intelligence diffused among the people themselves; for, however contrary to a prevailing impression, an American was able to conceive of something beyond the realm of the almighty dollar alone, of a progress that was not wholly expressed in a formula of pounds, shillings and pence. It was, indeed, that kind of progress—a progress in all that could elevate the man, and by showing him the path of individual improvement, thus effected the moral, social, and intellectual elevation of states and nations; it was this progress that constituted a fit subject for felicitation, and it was here, and here only, that he hoped there might ever be a spirit of rivalry between Great Britain and the United States. His Grace, and the members of the honorable body over which he presided, had been kind enough to propose and drink a stranger's health, and he begged them to accept a stranger's God-speed in all the good they were doing; it should be their part, in other lands, to emulate such an example.

Making Soap.

I wish you to inform me through the "Cultivator," of some of the mysteries of soap making; our *modus operandi* is to pass the lye through slacked lime, then boil

and add fat; sometimes the lye and fat will unite, but often the fat will float on the top as soon as cool. Why is this? Or what are the requisites for making soft soap of wood ashes. D. F. B. Portersville, Pa.

The best process for making soft soap is simply this: First, Procure good ashes; place a half peck of caustic or water slacked lime, in the bottom of the leach, for each barrel of ashes; if air slacked, the quantity must be larger, according to the time it has been exposed to the air. It is usual to place straw below the lime, to prevent the water from carrying it off in particles. Place the ashes on the lime, beating it compactly as each successive layer is applied, till the leach is full. If not beaten solid, the water will run through too soon, and the lye will be weak. A stout barrel, slightly inclined, with a hole bored through the bottom, makes a good leach. It should be placed on a piece of broad plank, with a gutter cut around it, to collect the lye; and high enough from the ground to set a tub under. The water poured upon the ashes should be hot, until the lye begins to run; and the time that should elapse after the water is first applied, till it passes through as lye, should not be less than twenty-four hours; if sooner, the ashes has not been beaten sufficiently, and the lye will be too weak. It will continue to run as long as water is applied, but at the same time growing weaker, as the potash becomes carried off.

If the ashes could be perfectly fresh, no lime would be required in the leach; as when first burned, ashes are caustic, but gradually lose this quality by absorbing carbonic acid from the air. The lime abstracts this carbonic acid, and renders the lye again caustic.

If lye is not strong enough to float an egg, it will not make good soap—but we have known it to do this, and still cause a failure, if not sufficiently caustic. The last named defect may generally be ascertained by pouring in a portion of some strong acid, as aquafortis or oil of vitriol, which will cause a violent effervescence—even strong vinegar will do. When this is the case, it shows that enough lime has not been used; and it may still do to apply it. We have known its use to cause success even after the materials for the soap had been mixed together.

The grease must be first boiled—then a pint of lye added—afterwards a quart—and so on by gradual additions till the soap is made. A barrel of good ashes will make a barrel of soap—but if the lye is strong enough to combine well with the grease, the soap will be too strong, and injure the clothes. This is remedied by adding a pail of water to each pail of freshly made soap, or diluting it.

Family Recipes.

MESSRS. EDITORS—It has been my practice for a long time of writing down in a small book which I keep for the purpose, all useful and really valuable recipes for domestic purposes. Many of these are original with myself, and all of them have been many times proved, so that I can testify to their being what they are represented, recipes of value in every household.

PAINT.—For a durable and cheap paint for house floors, dissolve one ounce glue in a quart of warm water, thickened with paint. After being put on, go over with a coat of boiled linseed oil. It will dry in ready for use in two hours.

PICKLES.—For one half barrel of pickles, make a brine of two quarts of salt with half pound alum. Keep the barrel covered tight. Pickles preserved in this way require only to be soaked over night to be ready for use.

LINIMENT.—One of the best liniments for lameness, rheumatism, sprains, &c., is made of three ounces of sulphuric ether, one ounce alcohol, half ounce oil lavender, two drachms laudanum.

HAIR DYE.—A durable dye for coloring the hair, to be dried in the sun after using upon the head, is composed of one drachm nitrate silver, one ounce spirits ammonia, one ounce soft water.

From my recipes relating to cooking, I send two or three common ones, with the hope that they will prove acceptable to your readers.

SOFT GINGERBREAD.—One pint molasses, one cup butter, half cup milk, two eggs, one teaspoonfull cream tartar, two teaspoonfulls soda, one tablespoonfull ginger, four cups flour.

LONDON SNAPS.—One pound flour, four ounces butter, one cup full common sugar, half pint molasses, third cup full ginger, with a little saleratus.

JOHNNY CAKE.—Three cups sour milk, three cups Indian meal, three tablespoonfulls molasses, one egg, with a little flour, salt, and saleratus.

Perhaps I may give you, at some future time, further extracts from the recipe book of, yours truly, M. S. M.

Top-dressing Lands.

Messrs. Eds.—Some scientific farmers have promulgated the idea that all manures applied on the surface of the earth, lose a great part of their value by evaporation. This is undoubtedly true many times, and at others a more beneficial effect comes from the application, than if it have been otherwise made. We give one or two illustrations that have recently come under our observation.

A year ago farmer C. sowed a field of rather frosty land, facing the northwest, to winter rye. We thought the field rather unpromising to the crop. It looked passably well, however, through autumn and spring. The middle of June we passed by it, and could not help remarking the difference between a couple of acres in a lower corner, from the other parts of the field. The first impression was, that it was a different grain, but as we reached the field bordering on the wayside, we saw it was rye and nothing else. We inquired of farmer C. the cause of difference, and were informed that all parts of the field were subject to the same treatment, except the corner giving "the largest and best," was top-dressed with good manure after sowing. It appeared to us, at the time, that this fertile corner would be ready for harvest a full week before the other part of the field, and were informed that it was sowed ten days later, making half a month difference in the time between sowing and harvest in the two pieces or portions of the field.

Farmer D. sowed oats last spring in two fields of a similar soil. The difference in cultivation had been that field number one was planted with corn the previous year, and well manured with rotten manure in the hill, and was sown to oats about April 20. No. 2 was, in part, planted with corn, manured in the hill with recent manure, and a part planted with potatoes, and no manure given. This field was plowed and sowed to oats about April 27, and a top-dressing of eight loads of recent manure applied to the acre. No. 2 was ready for harvest a full week earlier than No. 1, the straw was brighter and the grain heavier, and what was more, the grass sown had taken a much better start. In these cases, and we are sure they are not solitary ones, top-dressing plowed crops has been beneficial, by increasing the crops enough to pay cost, leaving the ground in much better condition for future harvests. It has also given new proof that giving fertility to the land lengthens the season, equal to from ten days to two weeks, or in other words, by giving strength to land, it is enabled to bring forth and mature a crop in so much less time than it would do without this cultivation, a consideration of no small importance in our climate, and especially in seasons like the past.

Top-dressing grass lands has been practiced as far back as our memory runs. Formerly, farmers drew the manure for this purpose on their meadows in autumn, and let it lie in small heaps until spring, when it was spread, leaving a full share where the heap stood, which, of course, had taken a pretty fair benefit from it in the fall and early spring rains.

Experience has now taught a better practice, which is to spread the manure evenly from the cart, just early enough in fall to have the rains incorporate it with the earth as much and as soon as may be. In this way the roots of the grasses feed upon its juices in autumn, and what is quite as valuable, it forms a little extra covering for the roots to protect them from the cold of winter. From this the crop derives great benefit.

Compost forms an excellent dressing for grass lands. We have tried spreading simply the soil from the road side, with good effect, but had this or swamp muck, of which there are thousands of acres now lying useless and worse, for they are continually filling the air with

miasma, allowed to be mixed with one-third or one-half yard manure, and to lie so mixed for one season, and then spread, they would produce a very fine effect. One load of such a compost—where a half or two-thirds are taken from the swamp—is worth as much on meadow land, taking the time of continuance into account, as a load of livery stable manure, though it does not cost a half as much as the latter at present rates. W. BACON. *Richmond.*

Snap Dragon—How to Destroy it.

Farmers of Rensselaer county, awake! There is an enemy lurking in your midst that, ere you are aware, will take you captive—will bind you with fetters of brass, from which, if you slumber on a short time, you will be unable to free yourself. I would say that there is a weed, called Snap Dragon, rapidly spreading over Rensselaer county. To those who are acquainted with the weed, I cannot too vividly picture its obnoxious qualities. To those who are unacquainted with it, I would say that to my own knowledge it has completely ruined several farms, rendering them nearly unproductive, and entirely unfit for pasturage.

This weed spreads very rapidly, sometimes obtaining entire possession of a farm in five or six years.

Now for the means of destroying it. I have had the roots dug out very carefully, and carried off for three years in succession. The result was that it spread as rapidly as ever. It has great quantities of small fibrous roots, which I could not remove. I then applied the best quality of fine salt, and succeeded in exterminating it. I neglected mine (not knowing what it was,) until it covered nearly a half acre of ground. This year I found about half a dozen stems, to which I applied salt as usual. A RENS. CO. FARMER.

Black Leg in Calves.

EDITORS OF THE COUNTRY GENTLEMAN—In your number of August 4th, are some inquiries by ANDREW STEPHENS, in regard to a fatal disease that has made havoc among his Durham calves. Three years since we had some sad experience in the loss of a number of our finest calves, and with a great deal of care, and applying all recommended remedies, with a great many calves, after the disease was fairly developed, and saved but one, and that cost twice as much as it was worth. We watched for the early symptoms after we became acquainted with the disease. With the first symptoms we would give from a half to one pound of salts, and then in a short time bleed freely. I believe we saved all we treated in this way, in the early stages of the disease. With us the calf, in some cases, would be well at bed time, in the morning be dead and stiff.

The disease, in its various stages, is called the Black Leg, Quarter Evil or Black Quarter. You will find in Clater and Youatt's Cattle Doctor, page 82, a full description of the disease, and the proposed remedies and cures. AMOS BALLANCE. *Pleasant Hill, Mercer County, Ky.*

How to Keep Milk.

I never argue this question with man or woman, if they do not know that milk can be kept with all the cream in it, as it is when first drawn from the cows; but I will tell you how it is done. You all know that if you can prevent the cream from rising, the milk will be more palatable and healthy, with the particles of cream mixed through it, than skim milk, or than milk fresh from the cow, with the fresh taste and odor. To prepare milk in this way, take it while warm from the cow, set it in a cool place, and stir it continually until all the animal heat is out, and no cream will rise after that operation. Try it, and see how much it will be improved for family use.—A. B. DICKINSON.

THE CULTIVATOR FOR 1860.**Enlargement in Size and Type.****REDUCTION IN PRICE.****Premiums and Inducements to Agents.**

In making their arrangements for the new Volume and new Year, the Publishers of THE CULTIVATOR have determined upon some improvements which cannot fail they hope to meet with a hearty response from the Agricultural Public.

It will be remembered that since its foundation more than a quarter of a century ago, THE CULTIVATOR has ever held a prominent position among periodicals of its class. In 1853 the COUNTRY GENTLEMAN was established as a weekly journal, and the facilities thus acquired by the publishers have enabled them to command for the two journals a correspondence in all parts of the Union, unequalled it is believed, either in extent or sound and practical character, by any cotemporary. Furnishing monthly at a price exceedingly cheap, such portions of the matter first contained in the weekly, as the limits at command would allow, they have been able to give THE CULTIVATOR a rank and value it would not have otherwise been likely to attain, even at double its present subscription price.

But when in 1853, the price was reduced from One Dollar per annum to FIFTY CENTS, the size of the page was also made somewhat narrower and shorter in order to admit of its coming within the border rules. Nevertheless, for a year or two back by reducing the size of the type employed, a vast quantity of matter has been compressed into its columns.

It is now proposed, however, to ENLARGE both the page and the type to THE SAME SIZE AS WHEN THE CULTIVATOR WAS ISSUED AT ONE DOLLAR PER YEAR. This change will take place with the January number, and will be a welcome one to many who have found the small type inconvenient, and who will at the same time receive as great or even a larger amount of matter in the new form as in the old.

The price of THE CULTIVATOR is uniformly Fifty Cents a year, all subscriptions beginning with the January Number. But we offer

I. A Premium to every Club Subscriber.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS is the title of a Premium Volume issued each year, mainly for presentation to CULTIVATOR subscribers, although it commands a large sale to others at its retail price—*Twenty-five cents per copy*. The Number for 1860, just issued, and a summary of the contents of which appears on the last page of this paper, contains no less than *One Hundred and Eighty Engravings*, besides a beautifully illuminated cover, and over a hundred pages of reading matter exclusive of the Almanac for the year. As it has been found difficult to collect and remit the postage paid upon subscribers' Premium copies of the REGISTER, the publishers now offer to bear this burden themselves, and *Five Dollars* will therefore pay for Ten Copies of the CULTIVATOR for 1860, each accompanied by a copy, *postage prepaid*, of the ANNUAL REGISTER. This is a considerable reduction, especially as they also offer—

II. A Premium to every Agent.

The efforts of the friends of THE CULTIVATOR, old and new, are solicited in adding to its circulation;

but this assistance is as largely remunerated as the low price at which its terms are fixed will admit. It has been determined to offer for 1860—

1. To any one sending *Ten Subscribers and Five Dollars*, a Premium copy of the CULTIVATOR and REGISTER one year, free, for his own use.

2. To any one sending *Twenty Subscribers and Ten Dollars*, either of the following:

The COUNTRY GENTLEMAN (weekly) *free for Six Months*; or, A Complete Set of the ANNUAL REGISTER *postpaid*, six years; or, Volumes of the CULTIVATOR *postpaid*, for any *Two Year* since 1852; or, *Two Extra Copies* of the CULTIVATOR and REGISTER for 1860.

3. To any one sending *Thirty subscribers and Fifteen Dollars*, either—

THE COUNTRY GENTLEMAN *free for One year*, or, *Ten Premium Copies* of the ANNUAL REGISTER for any desired year or years, or, Volumes of THE CULTIVATOR *post-paid* for any *Three Years* since 1852. or, *Three Extra copies* CULTIVATOR and REGISTER for 1860.

4. To any one sending *Fifty Subscribers and Twenty-five Dollars*, THE COUNTRY GENTLEMAN *free for one year*, and, in *addition* to it either

Twelve Premium Copies of the REGISTER, or, Volumes of the CULTIVATOR for any *Four Years* since 1852, or, *Four Extra Copies* CULTIVATOR and REGISTER for 1860.

To the above Terms, Subscribers in the British Provinces must invariably add *Six Cents per copy* for the postage prepaid upon their papers.

Subscriptions for the Country Gentleman.

In obtaining the Premiums above offered, a subscription to the Country Gentleman at \$2 per year, will count the same as Four subscribers to the CULTIVATOR, and the subscriber to the Co. GENT. will receive one copy of the REGISTER.

SAMPLE COPIES

Of the REGISTER to show for the purpose of obtaining subscriptions, will be sent to all those who have lately acted as Agents for the CULTIVATOR, immediately, and any one who accidentally fails to receive a copy, will please inform the publishers, when the deficiency shall be promptly supplied. And, lastly,

EVERY READER is requested to act as Agent, and any one wishing copies of the CULTIVATOR and COUNTRY GENTLEMAN for the purpose, will at once receive them, together with a copy of the REGISTER, upon application, giving the address clearly and distinctly.

Agents who wish the REGISTER to supply to every subscriber as fast as they take his name, can remit for them at the rate of *Fifteen Dollars a hundred*, (15 cents apiece,) and on the completion of their lists, send the remaining 35 cents for each subscriber, when the Premium due upon the whole will likewise be adjusted. This has proved an excellent plan: each subscriber, as soon as he pays his *Fifty Cents*, receives one-half of his money back in a *Twenty-five Cent book*, and the Agent has no farther trouble in the collection of the money. Address

LUTHER TUCKER & SON,
Publishers of THE CULTIVATOR,
No. 305 Broadway, ALBANY, N. Y.

Foreign Editorial Correspondence.

The County of Kent.

Something more, I believe, than nine hundred thousand acres of land, arable and meadow, are comprised in the county of Kent. Lying to the southward of the Thames it has the advantage of immediate water communication with the metropolis, not only along the Thames itself, but also from the mouths of the Medway, Stour and Darent rivers. A drier climate and considerable variety of soils give it some agricultural advantages over other counties. Romney Marsh boasts of over 20,000 acres of the richest pasturage, rescued from the sea, in the south. The deep and fertile loam of East Kent is among the finest wheat soils in England, and both here and on the ragstone rock and green sand of West Kent and Mid Kent, and on the best drained clays of the Weald, are found the hop gardens which contribute, in a large proportion, to the flavor of that liquor so refreshing to the thirsty Briton, and so widely disseminated from the breweries of Staffordshire and London. Indeed it is stated that Kent produces about one-half of the hop crop of the kingdom, having in 1849 nearly twenty-three thousand acres thus employed, while only twenty thousand were then used for the purpose in all the rest of the country.

Farming at Macknade, near Faversham.

The gentleman whose name I mentioned at the close of my last letter, **FREDERICK NEAME, Esq.**, was farming about 270 acres, divided nearly as follows:

75 acres in wheat.	23 acres in turnips.
44 " barley.	25 " mangolds.
22 " hops.	24 " clover.
32 " beans.	Remainder in pasture.

The system of rotation pursued was one of nine years, for example, 1, turnips; 2, barley or oats; 3, wurtzel; 4, wheat; 5, red clover; 6, wheat; 7, barley or oats; 8, beans or peas, and 9, wheat—thus securing five white crops, three of them wheat, to four green crops. To take this rotation from the beginning, the turnip crop will have been preceded by wheat; after that was harvested, a kind of plow or cultivator, called a broadshare, was passed over the land, a flat point 18 inches wide being carried about 3 inches below the surface, not turning over the ground at all, but cutting off the roots, and killing the weeds. By this operation and the subsequent harrowing, the ground is so stirred that the seeds of noxious plants, as well as those self-sown by the last crop, will vegetate. Immediately after the broadshare, the harrow is twice used to free the ground from the stubble, which is gathered in rows every fifteen or twenty rods, according to quantity, and if thought worth the labor, or in default of straw enough, this is carried to the yards, to be trodden into manure; otherwise it is burnt. A second plowing takes place, if possible, before the middle of October, say 8 inches deep, burying any vegetation that has started, and throwing the soil into furrows as rough as possible, in order that the frost may act upon it; for the rougher and the larger lumps in which it lies, the better will a spontaneous disintegration be effected during winter. The next process is a plowing the last of March or the first of April, after which the land is harrowed twice and rolled. The second spring plowing is done with the broadshare, and after another harrowing and rolling, the manure is carted out and spread, and plowed in six or seven inches deep. Then there is another harrowing and rolling and the land lies about a fortnight, when, if the weather is dry, the broadshare may be once more employed. Swede turnips are sown about the first week in July, and white turnips about the third week—about half and half of each being grown. If mangolds was the crop, the preparation of the land for it would be similar, except that one plowing would be omitted, as the seed is sown the second week in May.

The white turnips make good bulbs in six or eight

weeks after sowing, and in ten are fit for feeding, being the earliest root on which the sheep are put. The Swedes succeed, and when they are gone, which should not be until late winter or early spring, the mangolds come in season, their great merit being their keeping qualities. I saw through June and July, here and there, the last of the mangold crop of the preceding year not yet entirely exhausted, although they were said to be suffering rather more from decay than usual. The turnip growers sell in spring the sheep fatted during winter upon roots, while the Marsh farmers winter their flocks on the highlands and take them back again upon the pasturage during a second summer, so that they finally come to market toward the close of the year.

Cost of Cultivation, &c.—Stock Feeding.

The above facts show the labor undergone to *clean* and *cultivate* thoroughly for a green crop. It will be noticed that the autumn plowing was the deepest, when any raw subsoil that may be brought up is sure to have the benefit of the exposure, and to become well aired and intermingled. The spring succession of plowings, harrowings and rollings, renders the field like a garden. The smooth roller on light land, or a serrated clod-crusher on heavy soils, not only breaks the clods and pulverizes them, but mats together the tufts of couch or twitch, so that the harrows get at them better. Each dressing costs about five dollars, say \$3 for the plowing alone and \$2 for harrowing, &c., and three of these will make an expense of say \$15 per acre to start upon. Then the turnips are sown with artificial manure, and the cost of this, together with the farm-dung employed, is about \$50. Add to these two items \$20 more to cover rent, taxes, tithes, &c., and then put down the cost of seed, sowing, hoeing out and harvesting, and the total cost shows a considerable surplus over the value of the crop either for sale or for home feeding—which loss is placed against the great gain of the soil both in fertility and tilth. In fact the farmer has not incurred a very great expense beyond that he would have been obliged to undergo if his land had been a bare fallow in cleaning and manuring it, while he has his turnip or mangold crop to cover at least a considerable proportion of the outlay.

The second crop in the rotation will produce in seasons at all favorable, on this rich loam, fifty-six bushels to the acre of barley, or eighty of oats. If the turnips are so disposed of that the ground is clear of them by Christmas, the barley is put in before that date, and what is sown thus early almost invariably yields the best sample of grain. Living so nearly adjacent to water communication with London, my host often disposes there, of his hay and root crops, particularly mangolds, and purchases in return manure from the city stables and other sources—transportation being cheap enough to admit of this being a better policy than the home manufacture of fertilizing material, by the feeding of stock and the purchase of oil cake. But he generally keeps one hundred and fifty sheep to take care of the turnips, and will perhaps feed a dozen bullocks. Beyond four miles from the water the cartage of manure is found too heavy to make it profitable to buy, instead of yarding the necessary dung. The Agricultural year begins at Michaelmas, October 11, about which date he would buy in the cattle, and they will be ripe for the butcher in spring. Soon after harvest the purchases of sheep are made, and they graze upon the grain stubbles in the day-time, and in the night upon the clover-fields, from which two crops have previously been cut, until Michaelmas, when they are put upon the turnips for the whole twenty-four hours, receiving in addition, in troughs, about equal quantities mixed, of clover and straw, with oil cake. The first cost of the lambs is about an average of eighteen shillings sterling (say \$4.50) per head, and they are sold along after shearing, probably during the month of May, for perhaps fifty-five shillings (\$13 to \$14.) Of this about two dollars, as I understood, is received for the wool, which yields an average of six

pounds per head, and varies in price from twenty to thirty-six cents a pound.

The cattle grazed are principally the Irish or Welsh stock that comes into the county in spring at about 18 months old, is grazed in Romney Marsh during the summer months, and about the middle of October again changes hands, then coming to the stall feeders for final preparation for market. In the application of manure, whether manufactured or purchased, Mr. NEAME expressed the belief that a moderate supply for every crop, was a better system than an infrequent application, however profuse. Wheat after clover is perhaps his only crop which receives nothing, but the clover has been manured, and the grain itself, if the land is too rich, will be liable to *lay*, particularly in a season tolerably wet and windy.

Mr. N., I am sure, will pardon me for the publication of so many details at length from his practice; for, in that spirit of generously giving all information likely to be of service to others, which I found so generally prevalent among the farmers of Great Britain, he kindly permitted me to inspect his accounts as well as his out-door operations. My thanks should be recorded for the interest he so kindly manifested in furthering the objects of my visit, and when I express my regret that the limits necessarily prescribed for it were such as to prevent the accomplishment of plans projected for some days in advance, that would have been both delightful and instructive to me, I am only saying what I shall have to repeat in writing of my visits at many other farms whose owners manifested a spirit similarly obliging, and whose methods of agriculture were equally well worth a more prolonged and detailed examination.

Kent is not regarded as a county of "high farming" in comparison with some other districts, Norfolk for example I think; and still upon not quite 270 acres, my host was spending no less than one thousand seven hundred and fifty dollars a year for fertilizing materials; his pay roll for labor was about \$3,800, and his rent, tithes and rates amounted to \$4,700.* In the rotation mentioned, mangolds are sometimes substituted for beans, and a greater bulk of manure can be put on the latter, and more if it will be left for the succeeding wheat crop. Ten pounds sterling of manure should yield 30 tons of mangolds, while it would only produce 6 quarters beans. The former will sell in London for about 18 shillings per ton, while the latter are worth perhaps 45 shillings per quarter. Clover hay sells for about £4 10s. per ton, and two and a half tons may be depended on as the yield per acre for two cuttings. This is a low estimate, both as to quality and price, for they reckon on a good clover field to bring sometimes £16 per acre. The cost of cutting is \$1.25 per acre, and an equal sum in addition will cover the expense of curing and hauling. About 40 bushels of soot per acre is recommended for the clover crop, and it costs sixpence sterling per bushel.

There are five soils in the county—1, the chalk land, consisting of a rich and productive loam which is naturally drained, and reaches sometimes to a depth of several feet above the chalk formation,—a soil productive for "corn;" 2, the London clay, requiring drainage, and when this is effected, also a good wheat soil; 3, the green sand rock, also kind for both "corn" and hops, particularly the latter, which are of first quality, and yield productively—this is the Maidstone district; 4, the Weald of Kent, stiff, not so rich, badly drained, bad carriage and no manure; and, 5, the alluvial deposits of Romney Marsh, washings of finely comminuted clay and sand, rich for crops or pasture. My informant knew of some fields, and referred to a particular farm in the latter district which for many years, he thought

* To be precise, the farm contains 268 acres, and the payments for artificial manures during the past year were £216, and for oil cake £135—total £351. For labor £760 was paid, and for rent, tithes and rates £990. The tithes were very high, being sixteen shillings and sixpence sterling per acre, or about \$4.

since 1810, had been cropped alternately with wheat and beans, receiving no manure, and now as productive as ever.

The hay for the London market is cut from the stack in trusses of exactly 56 lbs, 3 feet long, 18 inches wide, and 18 inches deep. Thirty-six of these trusses I think count for a ton or "load." All the hay and grain is stacked, and to the neatness and regularity with which these stacks are made, I shall have occasion elsewhere to refer. Stacks, rectangular in shape, cut up better for hay, but round ones are often preferred for "corn" as having less surface exposed.

As illustrative of the difference between the English season and our own, I may mention that the pea crop, harvested about the first week in July, is sown in *January or February*, months when we are cutting and housing our stores of ice and gliding over frozen ground and solid snow to the music of the sleigh-bells. In fact there is no month when out-door work does not go on in England, and the great season for plowing matches in fact is the winter. Nature, perennially vigorous in tropical climates, if she has not favored Great Britain with a summer that ripens the luscious fruits of the south, has given her a winter free from the rigors of the north, and if she is herself more sluggish at one season, permits during the other the active exertions of the cultivator. January might almost be termed the only winter month, for the operations of autumn are continued until Christmas, and with February begins the business of another spring. March and April come in to supply what we have very little of, real spring weather of germination and slowly expanding growth, in lieu of that intermixture of summer and winter which this quarter of the year in America appears to the emigrant to resemble. The rye sown for early feeding, is high enough before the middle of April, for the pasturage especially of the ewes and lambs, and by the time our grass at home is just becoming verdant, and while it is yet too often drowned down by the superabundant moisture, their "layers" and permanent grasses are often covered with a luxuriant and tender herbage already under the tooth of the flocks and herds, at least in Southern England, although at a latitude corresponding nearly with the northern extremity of Newfoundland and the southern coast of Labrador.

But I have not yet come to the hops, and other subjects have extended themselves to such a length, that I shall have to postpone until another letter, what is really the chief feature in the Agriculture of Kent.

Extracts from Letter XVII:

Agriculture, although generally concerned with certainties, is not entirely without its speculative branches. It is in the main a paying occupation, but a slowly paying one; and if, in any particular crop, the profits obtained are occasionally large, they most often find their offset in seasons of disappointment and loss, and the average result is found not to vary very widely from the "even tenor" of the farmer's ordinary way. It struck me that the farmers of Great Britain are more than ordinarily independent of the contingencies of season; they are certain at least to get a crop which we should call a fair one, under almost any event, and if they are favored according to their calculations, a yield which strikes an American as most astonishing is produced with such evenness upon a wide extent of surface, that one would think Nature in league with the cultivator to repay him as richly as possible for his toil. The effect of this appears to be that the great fear of the English agriculturist is not so much whether his own crop shall fail or shall succeed—give him manure, drain his soil, and clean it tolerably, and he will take his own chance, (comparatively speaking,) of this;—but the great cause in the difference of his profit in different years, arises from fluctuations in price, over which his own crops have less control than those of other parts of the world, and which sometimes force him to sell, at an actual loss, the abundant harvest which in a different state of feeling

at Mark Lane, might have added wonderfully to his resources.

The Hop Crop and the Tax upon it.

The hop crop is an instance of one upon which the season not only has a great effect, but which also, and for this very reason mainly, fluctuates I may perhaps say more widely than any other in the price it brings. It requires great capital to start upon, great patience to wait for, and great philosophy in accepting the chances it brings, from season to season, of winning or of loss. Mr. PAINE of Surrey, mentions that soon after the introduction of the plant into Great Britain from Flanders, about 1525, petitions were sent into Parliament against its use, and denouncing it as a "wicked weed." Some who have expended largely upon plantations to find them in the end failures, have been ready I imagine in these later times, to agree with their forefathers, and to wish that they had retained a taste for the pure malt juice untainted by the aroma of this foreign intruder. Government, too, in its earlier anxieties about the French, forced the hop-grower to ally himself against the elder Napoleon; for the crop was taxed to yield the "sinews of war," and, when the war days were over, these sinews being found convenient in operations incident to peace, the tax failed to be removed. The first tax, however, was put on in the days of George the Second, but so many changes has it since passed through, that one finds it difficult to trace the seventeen or eighteen shillings per cwt., which now goes into the governmental pocket, all the way through its origin and odd variations. Beginning with a penny a pound, for example, in the course of some years afterwards "three five per cents." were added, subsequently ten per cent. deducted, and then in the great struggle at the beginning of this century, the total was increased to something like two pence and three-quarters, per lb. (or more than \$6 per cwt.); then came a reduction to two pence a pound, with a further reduction of 10 per cent. for tare on bags, and finally, last change of all, an addition of 5 per cent. for excise duty. So that, did not government kindly vouchsafe to furnish the calculation, it might not now be very easy to follow out these additions, subtractions and percentages; but the authorities have taken care to make the additions keep the poise of the arithmetical balance generally in their own favor, and the farmers have paid whatever they were charged, perhaps with a wry face now and then, but on the whole with a wonderful degree of equanimity. And, now, I think they rather enjoy this tax than otherwise—at least those who succeed with their own crops, and who, like the rest of the world, bear the failures of their neighbors with a neighborly resignation.

A crop, however, that is of enough importance to be so taxed, and that is cultivated in America with nearly quite as wide diversity of success, deserves more sober and respectful treatment at our hands. I visited Kent just at the right season to walk between the shady avenues of poles, to look up to the twining arches of foliage overhead, and when on some higher point to see below me the harbingers of profit, seldom more thickly clustered, by which this verdant covering was variegated; while the circular kilns or *oast houses* in which the hops are dried, form quite a singular feature themselves in the landscape of the country. The "loose axillary panicles," as the botanists call them, which it is the object of the crop to produce, were of a lighter green than the remainder of the vine, and certainly produced a very pretty effect, drooping from their supports twelve to sixteen feet from the ground; and twenty or thirty acres in a hop-field is quite a sight for one to whom its novelty is an additional attraction.

Propagation and Planting.

The hop plant is propagated by cuttings, for which purpose the "layers or shoots of the preceding year" are taken; these may be bedded out during March in nursery ground, and as early as may be in November will be fit to plant upon the ground destined to receive them

permanently. This should be a deep soil, and there is none better for the purpose than the loam of this part of Kent, which rests upon calcareous rock beneath. It requires, too, deep trenching, for the roots of the hop are said to have insinuated themselves to a distance of 20 feet or over. The second year they receive poles three feet high. The distance of the hills from one another, as I saw them, was six feet six inches each way, admitting of horse cultivation in both directions, and making in round numbers a thousand hills per acre. It is now considered quite important by some to take one precaution, which I understood had been neglected or little thought of by many growers, namely, to set out male plants at intervals through the field. The two sexes, I believe, are never found in the blooms of the same plant, and while it is the female flower which is solely depended on for the crop, experience proves that when one hill of the male plants is put in, say to a hundred or two of the others, the latter are more productive, and mature their yield earlier than when this course is not followed. Six to ten such hills would be ample upon an acre, and they should be designated in some way from the others, so that when the "bines" are trimmed in spring, the layers if used for propagation may be distinguished from the layers of other hills.

Expenses and Prices.

Around the outside of the ground it is also well to plant a row of the hops quite close to one another to serve as a protection from the winds to those within. Poles twelve feet high are put to all the third year, when a considerable crop may sometimes be picked; but full bearing does not commence until the fourth season, when the poles are sixteen feet high. The average yield then produced may probably be set down for East Kent at seven or eight cwt. per acre, although a good year now and then *doubles* this crop, and a bad one may reduce it almost to nothing. The average in Sussex, where the hops are of a coarser variety, will, perhaps, amount to twelve cwt., but the difference in their market value may more than counterbalance this greater productiveness. As illustrative of the expense and variable return of the crop and its cultivation, I may mention the following facts furnished by a gentleman whose grounds I visited, and who kindly related to me his twelve years' experience as a hop-grower. The average annual cost, including new poles required, five per cent interest on the capital involved, the management of the ground and poles, manure, pruning, tying, rents of land and of kiln, and the necessary cartage, was about \$135 (precisely £27 2s.) per acre. The cost of securing the crop had varied all the way from £2 2s. to as much as £17 per acre—in the former case (1854) with a yield of one-half cwt., 5 lbs. per acre, and the price received being £19 per cwt., and in the latter case (1856) the yield being 11 cwt., 3 quarters and 14 lbs. per acre, and the price obtained £4 per cwt. Here is a variation from the lowest price to another almost *five times as large*, and from the lowest yield to a product nearly *twenty-two times greater*! One year the hop tax was *ten guineas* per acre, and the other year *ten shillings*. If this is not enough to justify one in considering the hop a plant of decidedly "speculative tendencies," I do not know what stronger proof could be adduced.

The objection to sowing the seed of the hop, arises from the fact that the product varies from the parent, and consequently but a small proportion out of many may be worth cultivation. Seedlings are said to be more thrifty than cuttings, but there is a great advantage in having a well tested variety, uniform in its period of maturity, and also in being able to get a crop a year sooner from the nursery sets, than is possible if they were seedlings of the previous spring.

Cultivation of the Hop.

One very vigorous plant, or two or three less thrifty ones, may be put into a hill, but unless particular attention is paid to their cultivation during the first two or three years, three plants are thought preferable. Be-

fore they come into full bearing, the intermediate spaces may be occupied with a root or cabbage crop, but in any case the ground should be kept clean and in good tilth, as well as plentifully manured. Three poles are set in each hill eventually. They are best of ash, larch or chestnut, although other kinds of wood are used. The hills are all opened the first of March, and the shoots pruned back close to the root with a sharp knife, not more than half an inch or an inch of the last year's growth being permitted to remain. After this process, the hills are covered, in a day or two, and the poles are placed. By May 15, numerous shoots will have advanced far enough to enable the cultivator to determine which are the best, and these are then selected, leaving three to a pole, and the first tying proceeds, performed by women with old matting or similar material. The tying requires great care, and the land must be gone over three times before the "bines" are about five feet high, in order to tie those that are blown down by the wind, and secure them all sufficiently to enable them to twine naturally upon the poles, which they will do for themselves after this time. The hills are twice dug around with the fork during the period thus consumed. If they are flagging at all, artificial fertilizers may be forked in, (rape cake is recommended, or well rotted manure will answer) after the last time of tying—perhaps about the middle of June, when the plants are hilled up a foot or eighteen inches high, in order to retain moisture about the roots. The horse hoe is carried over the ground as often as the season and forwardness of the weeds render it necessary, and those that spring up too near the hills to be cut off in this way, must be cleaned out by hand.

When the "bines" reach the tops of the poles, a ladder-tying is generally necessary, in order that the weight of the further growth of branches and hops may not pull them down. The branches now begin to twine and festoon themselves over the alleys between the rows, making a complete and beautiful covering, especially if seen from above, where the clustering flower cones show to better advantage than below.

The hops are rarely ready for picking before the 1st of September, when the "bines" are cut about 18 inches from the top of the hill, and the poles pulled and laid upon frames, or otherwise arranged for easy picking. The crop should be of a golden color, but it requires considerable experience to determine when it is just right.* The picking costs from one shilling and three pence (30 cents) for a six-bushel basket, up to double this price when the product is less abundant, and it consequently takes a longer time and more work to get an equal quantity. After the picking, the poles are stacked, and during the month of January farmyard manure is drawn upon the ground, say at the rate of 20 loads per acre, and this is all forked in by hand by the 1st of March.

The Kilns for Hop Drying.

And now we should visit one of the *Oast houses*, and learn its design and way of operation. Much depends upon proper drying, the object being to secure such a circulation of heated air that what is called the *reek* or moisture which condenses itself among the green hops shall be rapidly carried off. The general form of the kiln is circular; the material brick; diameter 15 to eighteen feet, and with a roof running up like the extinguisher of a candle, having a hole at its apex, surmounted by a movable wooden ventilator. Upon the grounds I visited, however, they had in course of erection, a square kiln 20 feet on each side, with a view

* "It is highly important that hops should not be picked before they are fully ripe, and then they should be gathered with as much expedition as possible. A hop may be considered ripe when it becomes hard and crisp to the touch; when the extreme petal projects, in a prominent manner, at the tip of the hop; when the color is changed from a light silvery green to a deep primrose or yellow; and when, on opening the flower, the cuticle of the seeds is of a purple color, and the kernel or seed itself hard, like a nut."—*Morton's Cyclopaedia*.

of rendering it convertible into a dwelling house, in case the hop plantation failed to prove profitable. Apertures are left near the ground to admit the air freely on all sides. Open fires are sometimes employed, or a large stove termed a *cockle*; the fuel generally being coke with some anthracite. Above the fires, ten or a dozen feet, are the slats upon which rests a covering of horse cloth; on this eight inches or thereabouts of hops are spread, so that the kiln I saw would probably dry 400 bushels at once. The drying takes ten hours in a temperature of from 100° to 125° Fahrenheit. Two lots are dried in the 24 hours, so that the kiln is at work both night and day. Sulphur is used during the process to assist in driving off the moisture, and in bleaching the color somewhat lighter.

Connected with the oast-house are apartments for storing, &c., and the hops need not be packed until some days after they are dried. I learn that a packing machine is coming into use quite generally, which will be an improvement upon the old and laborious method of treading them into the *pockets*, as the hop-sacks are called.

Harvest Home and Its Sports.

With Mr. NEAME I had the opportunity of seeing one English festival which I should otherwise have lost—the Harvest Home. He drove with me to the house of a gentleman not many miles away, who farms I understood six or eight hundred acres, and whose laborers were all assembled, man, woman and child, to the number of nearly one hundred and fifty, as their master's guests, to have a dinner on the completion of their harvest duties. A tent or marquee was put up on the lawn, and when we came, about three o'clock, we found the company already seated at the two long tables it contained, the steward or foreman at the head, assisted in his office as chairman by his employer's little boy, a bright and pretty child of four or five summers. When the mutton had been thoroughly discussed and the plum pudding had gone the way that all plum puddings go, and the tankards of ale had become as nearly empty as any tankards will where there are ready spigots to replenish them—the younger men and boys went some of them to cricket or other amusements; the children merrily filled the swings suspended from a tree near by, or joined in various games; the married men consoled themselves with their pipes, and the healths of Queen and host, of hostess and heirs and guest, were given in succession, and some of the tuneful ones sang songs, and it was an hour or two before the word was given for tea. All this time the lady of the feast, whose appearance seemed scarcely compatible with the age of those who called her mother—I suppose in the temperate English climate, beauty is less evanescent than in our own—was distributing kind words and smiles and cheerful glances, which lit in turn the faces however worn by toil and exposure, of those who saw them. The tea was made outside and served to young and old seated around upon the grass, by master and mistress themselves, with a profusion of bread, butter and cake.

Among the children's sports, let me mention one I had heard of before, but never seen, for the benefit of any reader who may be fated to spend half an hour some day in the midst of such a crowd of youngsters in the country, and never to have learnt this way of giving time the go-by for them. A number of light paper bags were provided, filled with such things as most touch the heart of childhood, raisins and nuts, candies and little cakes; one of them was suspended from an overhanging bough, and the young competitors were one by one blindfolded in front of it, turned three times around, and then furnished with a stick to knock down the prize. The wild, blind blows they struck in the air, created great fun for the little spectators, and when at last some lucky competitor broke the tempting paper, a great scramble after its contents would ensue, and he or she as the case might be, recovering once more the power of vision, would be rewarded with a smaller bag similar in contents, as the meed of honorable exertion.

But no little diversion was caused when in one or two instances the ruptured bag only rewarded the scramblers beneath it with a shower of *saw-dust* for their pains. The evening was concluded for the company by a magic lantern exhibition in the cellar of a convenient barn, and later, for some friends of our host, by a hospitable supper within.

Among my recollections of Kent, not the least pleasant or enduring will be that of such an occasion as this—an occasion of thanksgiving and good cheer over the stacks of ripe corn which had risen high and broad from field to field—a re-union of employer and employed, equally interested in this result of their season's toil; and I could not but take it as a common acknowledgment of mutual services, and an ample witness of mutual good will. L. H. T.

Wheat and Chess.

We have received at different times several communications in favor of the transmutation of wheat to chess, the length of which precludes their publication in our columns. A notice of the chief points of their arguments may perhaps be sufficient.

One is from JAMES J. LORD, of Woodbury, N. J. He states that he and his brother both sowed wheat in their gardens, in squares—that the next year it “all headed chess of the very rankest kind.” We have known similar experiments, with similar results—yet proving nothing—in which there was seed enough in the soil to give a good crop of chess, and each square being hoed, as was the case with our correspondent's experiment, all the chess plants were destroyed, except near where each plant of wheat grew. The wheat being killed, there were enough chess plants left in its place to spring up and bear a crop.* If our correspondent will make a calculation, he will find that enough seed of chess may exist in the soil for a plant at every square foot, (and rank plants will cover a yard,) and yet this seed will constitute but a *six-millionth* part of the bulk of the soil—rendering it impossible to detect its presence. We must add his polite invitation to JOHN JOHNSTON of Geneva, (who has not raised a bushel of chess on his large wheat farm in 30 years :) “John Johnston says he would like to see the man that raised chess from wheat. If he will come here he can see two of them. We should be glad to see him here for a week, if he chooses to stay so long. It is a pleasant part of the country.”

Another is from L. MARBURY of Glymont, Ohio, who states the following fact, which led him “instantly to the conclusion that wheat does turn to chess.” A fifty acre field of wheat, when harvested, scattered enough grain to produce a partial crop the next year—after which a second sowing of wheat produced a crop wholly of chess. There was no chess in the first crop “to attract his attention,” and he therefore thinks the wheat changed. We have on previous occasions stated the many ways by which the land may become imperceptibly seeded with it—and among others the fact that chess plants often grow only a few inches high, unperceived among wheat, yet scatter seed profusely over the ground—and also the fact which we have often observed, that in much seed wheat that is called “*perfectly clean*,” we have found more seeds of chess for each bushel, than plants of luxuriant and spreading chess on a whole acre of dense growth of this weed. There are nearly two million seeds of chess to a bushel; we have seen a “dense growth” of chess at the rate of only 8000 plants per acre—the seeds of which would be less than a two hundredth part of ordinary seeding

*We refer our correspondent to the statement we published a year or two since, of a similar attempt, but conducted *with greater care*, under the auspices of the N. Y. State Ag. Society, by four different persons, one of them a firm believer in transmutation. All failed entirely to produce any chess from wheat, and the hundred dollar prize at stake was not awarded.

with wheat—a portion so small as to escape the notice of many eyes.

D. CLIZBE, of Amsterdam, N. Y., who thinks that wheat does not often, but sometimes produces chess, says, “there are crosses, and a mixing of different classes and orders in the animal and vegetable kingdoms, such as squashes, melons, corn, &c.; take, for instance, corn—we have seen white sweet corn mixed with yellow Indian corn, which are as different as wheat and chess.” Our correspondent will please excuse us if we say there is no analogy in the two cases. The mixing of squashes, corn and melons is only among *varieties*—not “classes,” or “orders.” Quadrupeds, birds, fishes, amphibia, &c., are different *classes*—crosses between which, as, for example, between a codfish and an elephant, or between a turkey and a tree-frog, are not to be expected. Wheat and chess are not *varieties*, but distinct *genera*, and a cross between them is quite as impossible as a cross between those distinct genera of the same order, the bat and the raccoon, the bear and the kangaroo, the magpie and the goldfinch, the pigeon and the peacock, or the pig and the zebra. But if crosses could occur in all these cases, they would not be parallel, for wheat and chess are not claimed to produce a *cross*, but one is asserted to change entirely, or make a clean leap over to the other—the same precisely as if it was claimed that a bat should bring forth raccoons, the bear young kangaroos, and the goldfinch lay peacock eggs.

Another correspondent suggests that chess may be “a mixture of oats or wheat, or rye with some of the grasses”—and he encloses seed of the sugar cane, broom corn, and a cross between them. We can only say that oats, wheat, and “the grasses,” are entirely distinct genera, and according to analogy can never pass their own respective boundaries, any more than the animals above named; and also that there is no evidence that they ever do so—while the sugar cane and broom corn, if not merely varieties of the same species, are very closely allied and easily mixing species.

One correspondent, who states a supposed case of wheat turning to chess, adds, “seeing you and our old friend, John Johnston, of Geneva, are so fully established in the error of wheat not producing chess, I wish to put you right”—and then adds, “you need not send the five hundred dollars, I don't want that, but the truth.” If he will look at our offer, he will perceive that this implied, although indistinct, claim of the premium, does not rest on the slightest foundation, as it was for a plant with distinct wheat and chess heads from the same root—not asserted, but *sent to us*. Although that offer stood several months, not a solitary plant was found in these thirty-two States of the Union, out of the millions of millions that are claimed to be changing from wheat to chess, that could be caught half way to secure this rich prize during these hard times.

We have on former occasions, within a year or two, given many decisive proofs of the non-existence of transmutation; we shall only say at present that we have known a number of farmers in different parts of the northern States, who by continued care year after year have succeeded in extirpating this troublesome weed, not only from their crops, but from their land, so that when their wheat is winter-killed, no chess ever springs up and spreads abroad, and grows luxuriantly to supply its place. Why should wheat never turn to chess on such farms?

Sold on the Show grounds of the Susquehanna Valley Ag. Society, at Unadilla, Sept. 16, 1859, where he received the first prize and the sweepstakes diploma, as the best animal exhibited in his class, the beautiful roan Short-Horn bull “Nutmeg,” vol. iv, A. H. Book. This young bull was bred by F. M. Rotch, of Morris, but lately owned and sold by Joseph Juliard, 2d, Bainbridge, Chenango Co., to Allen Scrambling & Brothers, Oneonta, N. Y.



Spanish Merino Ewes.

Bred by and the property of GEORGE CAMPBELL of West-Westminster, Vt.

American Grapes.

We have received from SAMUEL MILLER of Lebanon, Pa., a box of several of the newer American Grapes, some of which have of late years excited much interest. We give their names, with remarks on their appearance and quality. Some of them are the first year's bearing, under "ordinary culture," and of course they do not come up to the larger size resulting from the most luxuriant growth.

Union Village.—Bunch 5 inches long, not shouldered, berries large, seven-eighths of an inch in diameter—dark brownish black—much resembling the Isabella in flavor, hardly so good perhaps—nearly round. We should like to know the exact period of ripening.

Mary Ann.—Bunch small, berries half an inch in diameter, black,—probably very early; flavor good, equal to Isabella, sweet, perceptibly foxy, but not disagreeable. S. Miller says, "hardy and immensely productive."

Concord.—Fair specimens of this well known sort.

Brincklé.—Bunch large, about 8 inches long, rather loose, shouldered; berries five-eighths of an inch in diameter, round, black; skin rather thick, no pulp, flavor sweet and excellent—decidedly superior to Isabella. Has much of the delicacy of foreign grapes—is it hardy?

Perkins.—Resembles Northern Muscadine, a finer color, but scarcely equal to it in flavor. The specimens of Northern Muscadine had fermented or decayed.

Hartford Prolific.—Bunch 5½ inches long, shouldered moderately compact; berries five-eighths of an inch in diameter, globular, black—moderately good, slightly foxy, better than Northern Muscadine, and is probably quite as early.

Cassady.—Bunch of medium size, 4 or 5 inches long, slightly shouldered, moderately compact; berries half an inch to five-eighths in diameter, light green, sometimes a faint shade of salmon; sweet, scarcely foxy,

with much pulp, rather deficient in flavor. Downing says "very good," and S. Miller, "sweet as honey, with a peculiar and delightful aroma." Tastes differ, and we cannot place it so high in the scale of excellence.

Lenoir.—Bunch scarcely shouldered, 4 inches long, rather compact; berries rather small, or three-eighths to one-half an inch in diameter, with a rather brisk and quite high flavor—"good" or "very good."

Franklin.—A small, broad, shouldered bunch, compact and even—berries half an inch or more in diameter, round black, apparently thoroughly ripened, and hence an early sort. Quality "good," perhaps "very good." There is a perceptibly brisk flavor, a very slight shade of the acerb quality of the frost grape.

Delaware Burgundy.—is evidently an exotic—is it not Miller's Burgundy?

Raabe.—Bunches 4½ inches long, rather loose, slightly shouldered; berries less than half an inch in diameter, dark reddish brown, very sweet, juicy, very little if any pulp, quality "very good" if not "best."

Delaware.—fair specimens of this excellent grape.

Profits of Bees.

EDS. CULT. & CO. GENT.—The Sept. No. of THE CULTIVATOR, contains a statement by Mr. GEO. GEBHART, of Union City, Ind., that "he made \$150 clear profit on eighteen stands of Bees the last season, kept in common hives."

I will give you a statement of the profits of my Bees, which is far better than the above.

I commenced the season with 130 stands—have taken off 1,000 glass boxes, well filled, weighing 6,000 lbs., which at 20 cents a pound amounts to \$1,200. My increase of stock is 170—all good to winter, worth at least \$4 each, \$680; making the aggregate of \$1,880, or an average of \$14.46 for each old stock, which is \$6.13 better than Mr. GEBHART. He will have to try again. I use Miner's form of Bee-Hive, with a partition board instead of the cross bar, and consider it the most convenient and best I have yet seen. A. W. FORD. Middletown, N. Y., Oct. 3.

Inquiries and Answers.

BONE-DUST FOR WHEAT.—*H., Western New-York.* The phosphate of lime, taken from the soil, to supply this ingredient as a component part of the wheat crop, must be ultimately replaced to the soil. It is a curious fact, however, that analysis has failed to a great degree in indicating when it is needed. Dr. Emmons states in his Report, that ordinary analysis did not even show a trace of phosphate in the Wheatland soil, one of the best for wheat in the world, and which had for many years produced heavy successive crops. A subsequent and more careful analysis showed a minute portion—enough however for an ample supply. The statement of the “manager” of a certain “professor,” of a great crop by manuring with superphosphate, needs authentication. We have however known larger crops without the superphosphate. This manure has often produced excellent results, and at other times none at all. What we want is more careful and accurate experiment, and less of ignorant theorizing.

CULTURE OF TREES, RAISING HEDGES, &c.—“*Ama-teur,*” *New Brunswick.* In cultivating his orchard, now set two years, our correspondent should bear in mind that the roots will soon extend on each side of the tree a distance equal to the height of the branches; that is, if the trees are now eight feet high, there should be a clear and mellow surface of soil sixteen feet in diameter about each. If he does not wish to cultivate the whole surface, he may work a strip of land a rod wide, in the center of which each row of trees will stand, which will leave a strip of uncultivated land between, about fourteen feet wide. We should prefer cultivating the whole—which might be planted with potatoes, turnips, or beans—or any low crop which is kept cultivated through the summer. For broadcast culture, Shares’ Harrow, described in the Illustrated Register for 1860, is an excellent implement,—especially so, as it will never tear up roots. For one-horse culture, we would particularly recommend Alden’s Thill-cultivator, as being not only very efficient, but more easily controlled in depth or distance than any other implement of the kind we have tried. The cracked plum-pits, if fresh and plump when planted, and if planted very early as they should be, may have rotted in too wet or undrained a soil, or shriveled and dried in too dry one—our correspondent may be able to judge on this point. If neither, then the pits probably still remain good in the soil, and may start another spring. The same remarks will apply to the seeds of the native thorn. The latter, however, most usually remain dormant the first summer, and grow the second spring.

GREEN CROPS FOR MANURE.—I have a five-acre lot too far from home to cart manure—what do you think of sowing buckwheat in May, plowing in in July, then sowing another crop and plowing that in—would it not be better than clover? *F. B. Godwinville, N. J.* [We have no accurate and reliable experiments to show the comparative value or profits of green manuring with buckwheat and with clover. An advantage of the former is that two crops a year may be plowed in. Clover affords heavier crops, and the roots are a large addition—but it costs more in seeding, and requires more time. The practice in many places is to cut the first crop of clover and plow in the second. The mode of manuring with buckwheat proposed by our correspondent would be a good one; but in all cases of plowing in green crops, we like to add some yard manure, and a portion of ashes is usually a valuable addition. Green crops do not always produce equal benefits; as for example where there is already much vegetable matter in the soil, their effects are less beneficial.]

BURYING BUDS IN WINTER.—Can you or some of your correspondents, tell me if it will injure the newly inserted buds on quince stocks, to throw a furrow against them sufficiently high to cover the buds two or three inches? In my case I am afraid the rabbits will gnaw them or eat them off. Also whether buds that have

started this fall, and are in various stages of growth, will be ruined by the winter so they will not start in the spring? I think by banking up the earth some buds may be prevented from freezing out. *D. O. READER.* [Should the soil continue quite dry through winter, banking would not injure—but when wet, we have known the buds to rot by being thus long covered with a very wet soil. The young growth from summer buds is apt to perish by winter’s cold—hence the reason that pears are usually budded quite late in the summer—to prevent growing till spring. We would recommend experiment on a small scale.]

FLOODING CRANBERRY PLANTS IN WINTER.—Can you inform me if cranberry plants will thrive if covered with water through the winter, as I have a field of a number of acres which I design for them in the spring, and I use the same field for an ice pond in the winter? *JOHN B. KNAPP, Richmond Hill.* [We have been informed that a winter flooding, withdrawn early in spring, is a good protection against freezing—especially for newly set plantations—will some successful cranberry raiser please inform us, from his own experience, if this information is correct?]

BONE MANURE.—*O. B., Jefferson Co., Ky.* Bone manure, if merely ground, should be applied at the rate of half a ton or more per acre, for the different crops—if dissolved in sulphuric acid, so as to form a superphosphate of lime, five or six hundred pounds are sufficient. If about half the usual quantity of yard manure is applied at the same time, a greater benefit will result, than if the bone manure is applied alone, and in larger quantity. It should be well mixed with the upper soil by harrowing.

PEACH ON THE PLUM STOCK.—Please inform me whether grafting the peach on Canada plum, will keep it back to save from late spring frosts, and if so, where can they be obtained and at what price? *L. F. DILLAWAY.* [We do not think any decided or even perceptible results will be produced by working on the wild plum, in retarding the growth in spring.]

PROTECTING AND RIPENING STRAWBERRIES.—If strawberry plants are covered with cornstalks and leaves, will they be sufficiently protected during winter? Some of your correspondents say the Wilson’s Albany strawberry should not be eaten until *fully ripe*. From what they say, I judge the indications of ripeness are not the same in this as in other seedlings. How are we to know when “just the nick of time” arrives? *Hill-side, N. B.* [Cornstalks and leaves will no doubt afford ample protection, provided they do not become so matted down by moisture, upon the plants, as to cause them to rot. Leaves would probably be better in this respect than corn-stalks, as they have more elasticity when wet. A little brush laid on first would perhaps be an improvement, and a coating of evergreen boughs would undoubtedly be still better.]

The best way to ascertain if strawberries are fully ripe, is to allow them to remain on the plants as long as they continue to improve in flavor, and no longer after they begin to deteriorate. A little observation will enable one thus to know from the color the exact point of proper maturity.

SPAVIN, &c.—I have a five years old mare that has been a little lame for four or five months, with what appears to be a spavin. Is it advisable to use a beast in that condition? Is there any remedy for the disease? At what age is it advisable for heifers to “come in”? What is the practice of the best herdsmen? *R. N.*

DESTROYING ALDERS.—One of your correspondents some weeks back inquired for means of destroying alders. I will report some of my experience on the subject. Many years since (some 20 or 25) I had on the north end of my meadow a large patch of them. Late in the fall, probably in or near November, I undertook to get rid of them; and I cut them out close to, or rather into the ground, with the view of mowing close without danger of hitting the stumps with the scythe. The

next spring they came up, a perfect thicket of them. I did not disturb them till I had finished haying—I suppose somewhere in the early part of August, when I directed one of my men, a careful, good hand, to take his scythe and cut them down close to the ground. He did so, and there has not appeared a shoot of them from that time till now, nor is it likely there ever will. W. T. L.

KEEPING POTATOES.—Which is the better method of preserving potatoes through the winter—in a good dry cellar, or pits in the ground? By giving your opinion, and the reasons therefor, you will oblige W. F. [A cool cellar, which never freezes, is the best and most convenient place for keeping potatoes. They may be placed in large boxes or bins, raised from the ground. If rotting is feared, the bottom of the box should be made of slats, to admit of ventilation—otherwise this will not be necessary. They should be covered from the light, for which purpose chaff is a good substance. If buried in pits, the subsoil should of course have perfect drainage. We prefer heaps above ground, containing 50 to 100 bushels, to be covered with a foot of packed straw, and three or four inches of earth on the straw. This has been found much better than less straw and more earth. There should be ventilating holes at the top, loosely stopped with straw. The decayed potatoes often found at the top of the heap, when potatoes are buried in heaps, result from a want of ventilation. The advantage of keeping in good cellars, over this mode of preserving in heaps, is the saving of labor.]

SOUTHERN GRASSES.—Enclosed you will find three kinds of grass, all growing wild on my farm on the border of the French Broad river. What names are they known by? Nos. 1 and 2 stand straight between four and five feet high—No. 3 is inclined to lie down, but when straightened up is quite as tall as Nos. 1 and 2. They were plucked Sept. 15, 1859. F. W. J. Henderson Co., North Carolina. [The specimens sent, being only portions, and imperfectly preserved, do not afford us a perfect opportunity of determining the names: No. 1 appears to be *Cinna arundinacea*, which Muhlenberg says makes good fodder. Elliott does not describe it in his Southern Botany. No. 2 is *Bromus pubescens*—a different species, but the same genus as chess or cheat. No. 3 is *Muhlenbergia mexicana*,—rather a poor pasture grass.]

LOLIUM OR RYE GRASS.—I send you enclosed a plant altogether unknown to farmers in this vicinity. It was given to me by Mr. Abram Bellows of Glen, Montgomery Co., who found a number of stalks like it growing among his spring wheat. I have shown it to many of our farmers, but none of them ever saw or heard of such a plant. This specimen had been laying a long time on the ground before I saw it, consequently some of its characteristics were absent. J. C. TAYLOR. Glen, N. Y., Sept., 1859. [The plant is the *Lolium perenne*, or Rye Grass—an introduced plant—which has been sometimes highly recommended for pasture, but of the real value of which we are unable to speak.]

SPACE BETWEEN HEDGES AND FRUIT TREES.—I am surrounding a kitchen garden with an evergreen hedge or screen, composed of Hemlock and Norway spruces. In the border inside, I wish to plant dwarf fruit trees, pears, apples, cherries, peaches, &c. How near to the hedge may I plant them without their being injured by the roots of the evergreens? Please inform me through your instructive and interesting pages, and oblige A CONSTANT READER. Stockbridge, Mass. [Allowance should be made for the growth of the screen, according to the treatment it is to receive. If allowed to grow pretty freely, both the tops and roots will spread more than if kept closely sheared. The roots of fruit trees, as a general rule, extend *each way* at least equal to the height of the tree—and evergreens do nearly the same. Hence, to prevent *all interference* of roots the space should be two or three rods—this, however may be regarded as impracticable, neither is it necessary, for no detriment will result from some intermingling, espe-

cially if the roots on the opposite side have an unlimited range in good cultivated soil. There should be perhaps a space of at least one rod, which will allow room for cultivation, gathering fruit, extension of branches, &c.]

Will you publish a brief outline of a constitution and by-laws for a "Farmer's Conversational Society?" R. [Will some of our correspondents who have had experience in the management of such a Society, please favor us with the desired information?]

"STRIPPING."—In some portions of the west it is the practice for the milkers to return to the cow a short time after milking, and *strip* what remains or has accumulated in the udder. Is the custom advisable? Please give the reasons pro or con, in the Cultivator, and oblige M. B. L. Salem, N. J. [We hope some of our dairy-men will answer this inquiry.]

SEED CORN.—In regard to planting seed corn, we find in the N. H. Journal of Agriculture the statement of an experienced farmer, who says that seed from the butt end of an ear of corn will ripen its products all at the same time, and nearly three weeks earlier than seed from the small end of the same ear. He also recommends for farmers to break the ears in two in the middle, and plant only the seed from the butt end of the ear. Have any of our readers had experience in this matter?

THICK AND THIN SOWING AGAIN.—"How comes it" that a small quantity of seed requires to be thinly sown to produce the greatest yield, when say five bushels or more must be sown thick to produce the same result? Those that have any experience, know that a few ounces of wheat planted at the rate of a peck to the acre, will produce more wheat than to crowd the same seed on a few square inches. Then why is it that we hear men advocate the necessity of sowing two bushels or more to the acre? D. S. Pennsville, Pa.

FENCE POSTS.—I have cut the following from the N. Y. Christian Advocate and Journal:—"VITRIOL AND FENCE POSTS.—Of the many methods of preserving fence posts from decay, none is perhaps more simple and cheap than the one of soaking them in blue vitriol. At a recent meeting of the Farmers' Club, in Hudson, N. Y., one of the members exhibited a post soaked in a solution of blue vitriol—1 lb. of vitriol being used to twenty quarts of water. The post was pine, and when taken up was as sound as when first put down eight years since. This solution is good for all kinds of timber exposed to the weather—spouts, shingles, stakes, bean-poles, etc." It would afford me pleasure to learn the size of the post—how much of it, and how long it was soaked—the temperature of the solution, and how much of it was used. I have on hand a number of tamarack posts about five inches square, sawed over a year ago, and my object in making the inquiry is to learn of some cheap remedy that I can adopt to render them durable after they are set in the ground; and I would make it through your paper, for the reason that I think it will perhaps be more likely to meet the eye of the individual who made the above experiment, and also attract the attention of others who are able to give valuable information relative to similar experiments. D. G. WILLIAMS. East Dorset, Vt. [We shall be glad to hear from any one who has tried the experiment above referred to, but our correspondent will find directions for soaking posts in a solution of blue vitriol in the COUNTRY GENTLEMAN of June 16, 1859, p. 384.]

EGYPTIAN WHEAT.—Could you inform me in the GENTLEMAN, where I could get the seed of Egyptian Wheat. I brought a few seeds with me from Providence, R. I., two years ago, and raised it in my garden until it got nearly ripe, when cattle broke in and destroyed it all. I cannot find a seed of it anywhere. It looks just like corn when growing. The seed comes from the top as soon as it gets its full length. It bends down when the seed comes out of the stalk, and looks some like sugar cane seed, only larger. JAS. MONROE.

Notices of New Books.

PEAT, MUCK AND COMMERCIAL MANURES.—Under this title the Reports submitted to the Connecticut State Agricultural Society during the years 1857-8, by their Chemist, Prof. S. W. JOHNSON of Yale College, have been issued, and are for sale in a handsome volume by Brown & Gross of Hartford Ct., [price 75 cents.] It comprehends the analytical results obtained on the following fertilizers:—

Peruvian Guanos,.....	4	Superphosphates,...	20
Pacific Ocean Guanos, ..	2	Columbian Guanos, ..	6
Ichaboe Guano,.....	1	Poudrettes,.....	4
Baker's Island Guano, ..	1	Cotton Seed Cake,...	1
Miscellaneous,.....	5		

The analyses of these 43 samples have been made with great care, and are elucidated by an explanation of the chemical as well as the general bearings of the subject. We need scarcely say that the results of Prof. J.'s labors are of deep interest in every State where artificial manures are employed, although primarily intended for the benefit of Connecticut farmers. There is in fact scarcely anything of greater importance now, either at north or south, than to establish some such safeguards against fraud and deception in the manufacture and sale of manures, as the Ag. Society of that State have provided by securing the reports before us. More than a moiety of the volume is occupied with an Essay on the nature and agricultural uses of Peat and Muck, comprising moreover 33 analyses—a part by no means calculated to be less useful than that preceding it, and we can commend the whole to our readers with every confidence in the soundness of its teachings, and in the strict integrity of purpose with which its investigations have been conducted.

FLINT'S GRASSES AND FORAGE PLANTS.—A new edition of this work—the fourth—is now ready, containing some additions and wholly re-set in uniformity of style with the "Milch Cows" of the same author. We have seen no reason to change our opinion—already expressed—of the value of this work. [Price, \$1 25.]

THE THIRD VOL. OF THE AMERICAN DEVON HERD BOOK may now be had from the Editor, Mr. SANFORD HOWARD, of Boston. It contains 258 pedigrees of males, 399 of females, and portraits of Mr. FAILE's cow "Jenny," imported, Mr. WENTWORTH's bull "Puritan," bred by Col. L. G. Morris, and Mr. LINSLEY's cow "Fairy," imported. Owners of Devons will find it undoubtedly a matter of interest to yield this publication all the support in their power.

The Connecticut State Fair.

This exhibition took place week before last at New Haven; the show a good one, the weather favorable, the attendance large, and the results, so far as we learn them, generally satisfactory. We notice the names of the following exhibitors of stock, as having received various prizes:—Thomas Cowles, Farmington; A. H. Beach, Merwinsville; T. A. Mead, Greenwich; L. Birdsey, Meriden; P. B. Tyler, West Haven, and John Giles, Woodstock, in Short Horns—L. A. Thrall, Torrington; Linsley Brothers, West Meriden; B. H. Andrews, Waterbury; James A. Bill, Lyme; David Beecher, Huntington; D. W. Grant, Bloomfield; Stanley Griswold, Torrington; James J. Webb, Hamden; N. B. Smith, Woodbury; Levi Coe, Middletown; John and H. Tillotson, Farmington; S. & L. Hurlburt, Winchester; Stephen Atwood and Joseph M. Munson, Watertown, in Devons—John Giles, in Ayrshires and Alderneys—Donald G. Mitchell, New Haven, and Dr. E. Bentley, Norwich, in Alderneys. The exhibition of grades, both of Short Horn and Devon blood, and of "Natives," appears to have been large; that of Steers and Working Oxen, in no less than six different classes, must have been very fine; the miscellaneous part of the show attractive in extent and character. Three

evenings were spent in Agricultural discussion, in one of which the project of popular lectures at Yale College, on Agricultural subjects, during February next, was broached, as referred to in our last number; it seemed to elicit general approval, and we understand that numerous names were received for tickets.

Mowers and Reapers.

MESSRS. L. TUCKER & SON—I am tempted to purchase a Reaper and Mower, *combined*; but my ignorance of all connected with them is a difficulty. In the first place, would I be justified in the expense, in cutting from 50 to 100 acres grain, and say 20 or 30 in crab-grass hay? And then what preparation does the land demand, above cutting with cradle? And in the last place and most important, if the land is well prepared, is the selecting of the proper machine. There are many patents, and *all claim to be best*, or equal to best, and though I have tried to notice closely what has been said in *THE CULTIVATOR* in favor of different patents, yet I am and would be at a loss to make a selection. You will greatly oblige me if you will give me the information I need in selecting the best for cutting wheat, oats, rye, and crab-grass hay. B. HOLMES. *DeKalb, Miss.*

The cost of a good combined mower and reaper would be probably saved yearly on a farm with the extent of grass and grain named by our correspondent.

There are several combined machines which have established a good reputation. Quite as much depends on the manufacturer as on the inventor. An ingeniously constructed machine may be made of bad materials, with badly made gearing, and work poorly. Another with less merits as an invention may be manufactured by a skillful workman, and far exceed the former in value. Among those which stand high in reputation, are Wood's Improvement of Manny, the Buckeye mower and reaper, Kirby's, and several others little if any inferior to them. Different farmers have their several favorites, showing their near equality of merits. To manage and keep a mower and reaper in good cutting order, it is necessary that it be in the hands of a person of some mechanical skill. The best machines have been spoiled when used for a length of time by ignorant and careless workmen. Any man of ordinary capacity, will in a short time, by care and attention, acquire sufficient skill to keep one in good order.

The land should be tolerably smooth, and free from stone. If intersected with furrows, they will interfere with the progress of the reaper, but may be passed with care; and although stone cannot dull a well-made machine properly protected with fingers, they may cause breakage or permanent injury.

Chester County, Pa., Fair.

The *Village Record*, published at Westchester, says of this exhibition:

It was a most triumphant affair. In the quantity and variety of articles on exhibition—the good arrangement of every department—and the number of people in attendance, it was very far superior to any exhibition ever held in Chester county. Indeed most intelligent gentlemen familiar with the history and progress of Agricultural Societies, very freely express their opinion that it was unrivalled by any County Exhibition ever held in the United States.

The receipts of the Fair were about \$2000, far greater than at any former Fair. There were entered for exhibition 130 horses, 170 head of cattle, 101 sheep, 111 swine, 36 loaves of bread, 189 glasses of jellies, and 185 of preserves, and a many-headed monster team of oxen—and several teams of mammoth horses. We congratulate the Society, Managers, Committees, and all others belonging to and participating in the exhibition, upon the honor they have reflected upon themselves, and the farming interests of good old Chester county.

The receipts of the St. Louis Fair are said to have amounted to \$50,000.

Notes for the Month.

N. Y. STATE AG. COLLEGE.—We noticed briefly in our last, the appointment of Major PATRICK to the Presidency of this Institution. We are favored with a copy of the following letter of acceptance:

OVID, 23d Sept., 1859.

MY DEAR SIR—Permit me, through you, to express to the Board over which you preside, my high appreciation of the honor they have conferred on me by placing my name at the head of the Faculty of their College.

The many expressions of fraternal regard from Trustees individually, joined to the unanimity and heartiness of their action as a Board, leave me no room to doubt my duty as to the acceptance of the office to which they have called me, however much I may tremble in view of the responsibilities incurred by such acceptance.

That our joint efforts in this vast field of labor may be crowned with the happiest results to our children and those who shall follow us, is the earnest hope and prayer of your friend and servant,

M. R. PATRICK.

Hon. JOHN A. KING, LL.D.,

Presid't Board of Trustees, N. Y. State Ag. Col.

For several years past Major P. has been the efficient General Superintendent of our State Society's Fairs, and has shown in this position a degree of executive ability which will be of important service to the institution over which he is now to preside. Educated at West Point, he will carry with him to his new post a knowledge of the most thorough educational system in our country, and possessing in addition, as he does, experience in Agricultural matters, and an unusual degree of sound, practical common sense, we hope to see the COLLEGE rise under his guidance to the high position it should occupy. Both from our public acquaintance with him, as well as from personal friendship, we are glad to take this opportunity of presenting our congratulations to the Trustees, and of wishing the President every success in his new avocation.

AGRICULTURAL EDUCATION—A NEW AND PROMISING IDEA.—We shall look forward with much interest to the completion of arrangements now under way and nearly concluded, to attract the attention in a new mode, of farmers and farmers' sons, to instruction in all the various branches of Agricultural and Horticultural improvement. It is proposed, under the auspices of the Scientific Department in Yale College, to hold at New-Haven, Conn., during the month of February next, an extended series of lectures, in courses numbering from three to five, embracing a most comprehensive range of subjects, and with the assistance upon each of the highest practical and theoretical ability to be obtained. Several lectures will be given during the day, as in a school of Law or Medicine, and the evenings will be mainly devoted to discussion. The whole programme, it is anticipated, will comprise from eight to a hundred lectures, for all of which the fee will be only \$10. The aid of twenty or more gentlemen, residing in five or six different States, prominent as agriculturists, horticulturists, stock breeders, &c., has been secured, and we shall soon be able to publish complete details, with names and subjects. By enlisting so many leading minds and compressing so much into a single month, the attention of experienced agriculturists and horticulturists, not less than that of the young and enterprising, can hardly fail to be attracted, and there seems to be every prospect not only of a large gathering at the time, but also that the subsequent results of the instruction given must be lastingly profitable to its recipients.

CHANGING SEED-POTATOES.—In regard to the statement "that a farmer increased his potato crop from fifty to one hundred per cent., by obtaining potatoes for seed raised at a distance and on different soil," the *Boston Cultivator* remarks, "If so, his first variety must have been very poor. As good potatoes as we ever saw grown, were raised from seed that had been used successively for twenty-five years. We recollect two facts of this kind."

ACKNOWLEDGMENTS.—Our thanks are due to D. S. HEFFRON, Utica, for a handsome sample of Child's Superb Grapes—to M. QUINBY, St. Johnsville, for a box of his superior honey—to E. WARE SYLVESTER, Lyons, for a dozen Seedling Apples, which originated on his place, and are known as the *Sylvester Seedling*; a very beautiful and excellent autumn apple—to T. S. CLARKSON, Tivoli, for samples of the Prince Albert Potato, equal to any we have ever seen—to O. H. OSBORNE, Watervliet, for a Maiden's Blush Apple, from Missouri, of extraordinary size and beauty.

W. C. DURANT, Esq., of this city, who showed the prize assortment of Hot House Grapes at the Fair last week, arranged in a large and beautiful case, making one of the handsomest displays we remember to have seen, will accept our thanks for fine clusters of each of the following sorts:—Black Hamburg (one weighing nearly two pounds,) Victoria, Muscat of Alexandria and Royal Muscadine.

FRUITS HARDY IN MAINE.—J. W. ADAMS of Portland, a successful cultivator, informs us that he has found the following kinds of the pear to endure well the winters of that region.

The *Urbaniste* he finds the hardiest; the *Beurre d'Amalis* next; and the *Flemish Beauty*, *Onondaga* and *Winkfield*, nearly as hardy.

He finds the *Ramsdell's Sweet* the hardiest apple, and the *Red Astrachan* and *Hurlburt* nearly as much so.

S. L. GOODALE of Saco, finds the following among the hardiest apples:—*Red Astrachan*, *Duchess of Oldenburgh*, *Rambour d'ete*, *Winthrop Greening*, *Autumn Strawberry*, *Wood's Sweet*, *Golden Sweet*, *Aunt Hannah* and *Northern Spy*—the latter, however, proving unproductive. The hardiest pears with him are, *Rostiezer*, *Dearborn's Seedling*, *Beurre d'Anjou*, *Flemish Beauty* and *Doyenne Boussock* on pear. *Autumn Paradise* and *Ananas d'ete* are rather hardy; *Winkfield* moderately so; *Beurre Bosc*, as elsewhere, quite tender. The Seckel does not succeed, simply because the tree will make no growth.

THE WASHINGTON PEAR.—We believe the merits of this variety are not sufficiently appreciated. The tree is a handsome grower, and a great and early bearer—and the fruit is of excellent quality, sweet, aromatic, juicy, and only lacking the melting texture of some of the celebrated varieties which are inferior to it in high flavor. A tree of this variety was planted fifteen years since on the grounds now occupied by E. W. HERENDEN of Macedon, N. Y., on a stony and rather sterile knoll, where it could not be properly cultivated. It grows well, has never blighted, and bears large annual crops. On a recent visit, we found it bending under its load of fair and handsome fruit, the crop of which was estimated at two barrels.

LATE-RIPENING RASPBERRIES.—F. ADAMS of Middlebury, Ohio, has sent us specimens of what he calls Hudson River Red Antwerp, consisting of an autumn crop, a small portion ripe, the rest green. He states that the spring crop was cut off by the "big frost," which is probably the reason of the production of this second crop. The specimen sent is the genuine sort, so far as we can perceive from a single shoot, much dried and shrivelled, which is hardly sufficient to enable one to recognize it with certainty.

SUPERB ISABELLA GRAPES.—Dr. H. H. FARLEY of Union Springs, has presented us with a box of grapes from his beautiful and fertile peninsula in Cayuga Lake. Our readers may judge of the skill of the cultivator as well as the natural advantages of the locality, when we inform them that several of the berries measured fully fifteen-sixteenths of an inch in diameter, and that one bunch weighed a pound. There was no ringing of the vine, nor unusual treatment. The crop this year is small, from the severity of last winter. Dr. Farley informs us that laying down the vines at the commencement of winter would undoubtedly have given him at least two thousand dollars in the increased crop.

AN ACCURATE AND RELIABLE "MAN OF SCIENCE."
—A recent number of the *New-England Farmer* contains an article from an Associate Editor, in which the writer manifests what we have once or twice before noticed with much regret, a singular willingness to give the endorsement of that journal and of his own reputation, to a man whose scientific standing, to say the very least, rests under the shadow of many unpleasant suspicions. In writing one's name upon the back of a note, it is well to investigate rather thoroughly the solvency of its maker but still greater caution is surely required in vouching for scientific soundness where open accusations of charlatanism have never been refuted, and where not only the *personal responsibility of the endorser*, but also the interests of the whole agricultural public are so deeply concerned. In the present instance, the endorsement strikes one as the more exceptional, because the article previously quotes without particular remark from an English authority confessedly without a superior in Agricultural Science; while it carefully reserves every expression of confidence for scientific "reliability" and "accuracy," and all its praises of "scientific knowledge," to bestow them—we should almost suspect ironically—where both the knowledge itself and the honesty to use any knowledge rightly, must be regarded as standing in an uncommonly equivocal light.

BUCKS Co. (PA.) FAIR.—The Annual Fair of Bucks county was held at Newtown on the 12th and 13th Oct., and was, as we learn, very successful in every respect. There was great competition for the Butter Premiums, for which there were 78 entries. The regular Address was given by Senator David Taggart of Northumberland county, followed by an off-hand talk by Horace Greeley of New-York. There could not have been less than ten thousand persons present, and a crowd evincing more substantial thrift, intelligence, and comfort generally diffused, could hardly have been gathered anywhere. The crops of Bucks county for 1859 are most ample—fruit probably excepted—and she has a large breadth of wheat sown, which promises a generous harvest next year.

THE N. Y. STATE FAIR.—The Editor of the *Boston Cultivator* speaks in the following terms of our recent Exhibition in this city:—

"It has been the fortune of the writer to attend most of the shows of this Society for the past fifteen years, and also to attend similar exhibitions in many parts of the country. Comparing this with any other display of the Society, or any other association in America, we have no hesitation in saying that it exceeds all we have attended. It may be that some parts of other exhibitions have been equal or superior to the same parts of this, but on a general comparison we presume this is unequalled."

The *Rural New-Yorker* thinks that the Society "never so fully demonstrated its superiority, or achieved such marked success, as during the holding and in the results of its Nineteenth Annual Exhibition."

"TERRACULTURE."—Terracultur Comstock has been lecturing at Pittsburgh, Pa., where his effrontery does not appear to have met with its usual success. The County Ag. Society appointed a committee to attend his lectures on terraculture, who were to report their views upon the subject to the society. The committee consisted of Messrs. James S. Negly and John Murdock, and Solomon Schoyer, Esq. In their report, which comes to us in the *Pittsburg Dispatch*, the "professor" is handled "without mittens." In conclusion, a committee consisting of Messrs. Reed, Snodgrass and Captain Young, was appointed to take into consideration the propriety of prosecuting Professor Comstock for obtaining money under false pretences. We have laid aside the report for publication as soon as we can make room for it, as it gives a better view of the professor's pretensions than we have before seen.

PROLIFIC BUCKWHEAT.—An Ohio farmer selected two stalks of buckwheat from his crop this season, and counted the grains—the first numbered 1,109, the second 1,321. He says he was satisfied with the crop, and counted no farther.

THE ANNUAL REGISTER FOR 1860.—In calling attention to the Advertisement of this work in another column, we have only room to mention that it possesses some additional features of attraction over preceding Numbers; orders may be immediately sent in, and we shall supply them, as they come, as rapidly as possible. The ANNUAL REGISTER contains no less than ONE HUNDRED AND SEVENTY-SIX ILLUSTRATIONS, and in their character, and the value of the accompanying matter, it is certainly not inferior, we think we may safely say, to any book ever issued at its price. [Single copies sent by mail postpaid, for 25 cents. Address the office of this paper.]

COTSWOLD AND LEICESTER SHEEP.—Mr. JOHN SNELL of Edmonton, Canada West, exhibited at our State Fair last week, a lot of long-wooled sheep, which we have rarely seen equalled. Among them were a Leicester ram, three years old, weighing 367 lbs., and two Cotswold rams, two years old, weighing, one 303 lbs., and the other 390 lbs. The last was purchased by Mr. WM. REYBOLD of Delaware City, Del., at a high figure.

NIAGARA Co. TILE WORKS.—The multiplication of establishments for the manufacture of Drain Tile argues well for the improvement of our agriculture, and we are pleased to see in that capital grain and fruit county—Niagara—new Tile works in operation. Read, Mickle & Co., of Lockport, are experienced workmen, and we saw at their yards all kinds of Sole and Horse-shoe Tile of full length and the best quality.

NEW PEARS.—The pears from J. S. NEGLEY of Pittsburgh, came to hand in good condition, and appear to be a fine variety. They are full medium in size, obovate-pyramidal, smooth and handsome, some of them with a fine crimson cheek, and the flavor is perhaps as high as "very good" on the scale of the American Pomological Society. We are not informed as to their productiveness nor growth.

VALUE OF CORN FODDER.—Cornstalks cut up at the root and well cured, have been estimated as worth from one-third to one-fourth their weight in hay, and another estimate places the product of forage from an acre in corn as equal to the hay from an acre, and often more valuable. We have never seen any statement of the product in tons of an acre of corn; if any of our readers have weighed the dried fodder, we should be pleased to publish the result.

RUTLAND Co. (VT.) FAIR.—This was held the first week in October at Rutland, and passed off to the entire satisfaction of all who were present. A Festival was held at the Town Hall, when speeches were made by Hon. S. Foot, Rev. Mr. Rusted, J. G. Lane, Judge Aldis, Hon. J. P. Hale of N. H., and others.

PEARS IN MAINE.—S. L. GOODALE of Saco writes, in speaking of the exhibition at that place, "I wish you could see the fruit in town to-day. Duchesse d'Angouleme 10 to 13 ounces, Clairgeau, 8 to 12 ounces, and others in proportion."

FAIRFIELD Co. (CONN.) FAIR.—Our Fair was held last week with a most complete success, the receipts amounting to upwards of \$1,600. EDWIN HOYT.

PRINCE ALBERT POTATOES.—To-day myself and nephew dug 40 bushels of the above variety on fourteen rods of ground, varying in size and length from two inches to nine and a quarter in length. Also a similar yield of the Red Mercer and Buckeye—the two last named varieties I obtained from the balls, this being the 4th year from the seed or ball. A. LAWRENCE. Mexico, N. Y.

DESCRIPTIVE CATALOGUE OF NOURSE, MASON & Co.—A large pamphlet of over 150 pages, profusely illustrated with several hundred cuts, representing nearly every imaginable agricultural implement and machine, sold at the celebrated and mammoth establishment of the proprietors at Quincy Hall, Boston. No farmer can examine this Catalogue without receiving valuable suggestions in relation to implements and their use.

C. M. SAXTON, BARKER & Co.—Our readers will remember that Mr. C. M. SAXTON, who was so long exclusively engaged in the publication of Agricultural Books, a year or two since disposed of that establishment to Messrs. A. O. MOORE & Co.—shortly afterwards himself entering into business as a general publisher, and subsequently becoming the proprietor of *The Horticulturist*. New arrangements are now completed in the re-purchase by him of the old business; and the firm named at the head of this note are therefore the proprietors of the stock, copy-rights, good-will, &c., of the book-list and establishment of A. O. MOORE & Co., as well as of *The Horticulturist*, and numerous miscellaneous works issued by Mr. SAXTON. In taking leave of Messrs. MOORE & Co. as Agricultural publishers and the agents of our journals, we owe them the expression of our esteem and thanks, while we may also commend the new concern with confidence and pleasure, to the patronage of the public. [Address—25 Park Row, New-York.]

THE CROTON POINT VINEYARDS have not been unfruitful this year—a fact for the evidence of which, in the shape of a box containing Isabellas and Catawbas of the usual excellent quality, we are indebted to the proprietor, Dr. R. T. UNDERHILL.

OXFORD DOWN SHEEP.—At the late Cattle Show of the Franklin Co. (Mass.) Ag. Society at Greenfield, the excellent and energetic Secretary of the Society, JAS. S. GRENNELL, Esq., exhibited a couple of Oxford Down bucks, a pair of Chester County pigs, and some turkeys of large size, adding materially to the interest of the exhibition, as none of these animals have before been seen at their shows.

POTATO ROT.—I am sorry to say our potatoes are all going with rot, and a better crop and better quality we have not had in many years. When in Canada lately, I found they were also commencing to rot. J. JOHNSTON Near Geneva, Oct. 17.

THE LARGEST APPLE.—A few days ago Mr. Horace Greeley of the "N. Y. Tribune," had sent him a "big apple," measuring $12\frac{1}{2}$ inches in circumference, which he considered unequalled. You will now see it is beaten by your humble servant. The one I send you, weighed 21 ounces when it was pulled, some ten days ago, and measured $14\frac{1}{2}$ inches. It has been on exhibition here for some days, but has not yet been beaten, though many have compared with it. I raised it and wish to present it to you, and hope you will accept it. GEORGE F. CONCKLIN. *Amenia, Dutchess Co., N. Y.*

CLEANING SEED WHEAT.—I met with several farmers during my late trip to Canada, who thanked me for publishing the way to clean chess out of wheat. One old man said, "Ah mon, you did us a good turn by learning us to clean chess out of wheat. I had been sowing and raising chess for 40 years, but I read your plan in the Montreal Witness, ten years ago, and now neither I nor my neighbors raise any more chess." JOHN JOHNSTON.

ST. LAWRENCE CO. FAIR.—We are indebted to L. E. B. WINSLOW, Esq., Sec'y of the Society, for a paper containing a full account of the Fair, which was held at Canton on the 28th, 29th and 30th of Sept., and appears to have passed off with unusual eclat, the show having been good in every respect, but excelling in the Dairy department, there having been about 160 competitors for the premiums on butter and cheese.

SEEDING WITH TIMOTHY.—Mr. W. D. KELLY of Lawrence Co., O., gives in the *Prairie Farmer*, an interesting account of his practice in seeding land, from which we condense the items following: He sows timothy seed on all his land, whether for meadow or pasture, finding the hay best for market; and as pasture, fattening cattle faster than other grasses, and without danger of hurting them,—they also require no water when feeding on timothy pasture. He prefers to sow the clean seed on ground plowed, rolled, and harrowed

for it, about the first of September. If any part fails, he sows again in March, or as early as the ground can be worked, harrowing or brushing in. He sows clover occasionally to plow in, to keep his land in good order, and sometimes in mixture with timothy for pasture. His best crops of corn are grown on timothy sod.

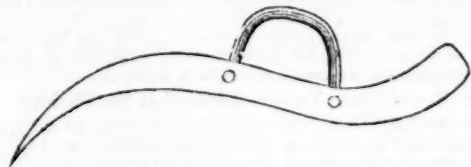
IMPROVEMENT IN HOP PLANTING.—We are indebted to some attentive friend in England, for a copy of the *London Star* of the 24th ult., containing the following interesting passage marked in its Paris correspondence:

A valuable discovery in the cultivation of hops has just been communicated to the Academie. Like most agricultural improvements, it has been the result of observations made by a laboring peasant. It consists in making the plant run in a horizontal direction instead of climbing up the pole. This is managed by means of a low trellis work of the simplest construction. The advantages of this mode of culture are numerous. In the first place, it enables the grower to investigate the plant while growing, and cleanse it from the numerous insects which injure it to so vast an extent; then it is protected from the sun, which always destroys the upper shoots; it obviates the great destruction of hops in stormy weather, when the wind lays low whole hop grounds from the height of the poles; and, most of all, it enables the gathering of the cones to take place without uprooting the plant, besides permitting the selection of the ripest ones at first, and preventing the great loss which arises from the necessity of tearing down the whole plant to get at the ripest blossoms.

TIME OF PICKING APPLES.—A writer in the *N. Y. Tribune* tells us that G. W. Browning of Luzerne Co., Pa., some years since accidentally discovered that winter apples picked some five or six weeks before the usual time of gathering, would keep sound some months longer than those allowed to ripen on the trees. Since that time he has picked his apples early, and reserved them for the spring and summer market, thus obtaining much higher prices than if sold in the fall or winter. Whether any effect upon the flavor and quality of the fruit was observable, is not stated.

Corn Huskers.

MESSRS. EDITORS—On page 32, vol. 13, Co. Gentleman, you say "a truly valuable corn-husker is yet to be invented," and I think we might add there never will be any invented superior to the old fashioned one made thus:



It is generally of iron or bone, about half an inch wide, with two holes made in it and a leather strap put in, forming a loop; slip this over a finger of the right hand, and you are equipped. An active hand with this, can out husk any machine than can be made to do it with neatness. J. W. LEQUEAR.

Lemon Pie—No. 5.

Two lemons—4 eggs—2 spoonfuls melted butter—8 spoonfuls white sugar. Squeeze the juice, and grate the rind of the lemon. Stir together the yolks, sugar, butter, juice and rind. Cover a plate with pastry, pour the mixture in, and bake till the pastry is done. Then beat the whites of the eggs to a stiff froth, stir into it four spoonfuls of sugar, put it on the pie, and place it into the oven till a delicate brown. This quantity makes two common sized pies. NANCY. *Keokuk, Iowa.*

Delicious Corn Bread.

Boil a teacup of rice. While scalding hot pour it on to little less than a quart of corn meal—4 eggs well beaten—a tablespoonful of lard—a teaspoonful of soda—a little salt—and enough sour milk to make a thin batter. NANCY. *Keokuk, Iowa.*

Kirby's Improved Mower & Reaper.

EDS. COUNTRY GENTLEMAN—In your report of the awards at the late State Fair, you omit those made by Committee No. 54, A., class 4. The following is an extract from their report:—"For the most valuable machine or implement for the farmer, either newly invented or an improvement on any one in use, we award the Silver Medal and Diploma to D. M. OSBORNE & Co., Auburn, N. Y., for Kirby's Combined Mower and Reaper. We find the improvements put upon this machine since the last State Fair, are of such a character as to justly entitle them to this award, and the exceeding simplicity and great strength of the machine must commend it to the farming community." This being considered one of the highest honors conferred by the Society, we think it deserves a notice with the rest. D. M. OSBORNE & Co., Auburn. Oct. 14.

Ag. Book Publishers—New Arrangement.

AGRICULTURAL PUBLISHING HOUSE.

HAVING purchased the entire stock and business of A. O. MOORE & CO., AGRICULTURAL PUBLISHERS AND BOOKSELLERS, (formerly C. M. Saxton & Co.) and united the same to our business as heretofore conducted, we now offer to the public the most extensive assortment of works on AGRICULTURE, HORTICULTURE, RURAL ART, and DOMESTIC ECONOMY, that can be found in the world.

It will be our purpose to keep constantly on hand a full supply of everything in our line, and all orders and inquiries addressed to us will receive prompt attention.

Complete Catalogues of our publications, which embrace the BIOGRAPHICAL SERIES and MISCELLANEOUS WORKS, formerly published by Miller, Orton & Co., will be forwarded to any address upon application.

C. M. SAXTON, BARKER & CO.,

Agricultural Publishers and Booksellers, and Publishers of "THE HORTICULTURIST," 25 Park Row, New-York.

Having disposed of my interest in the Agricultural Book business to Messrs. C. M. Saxton, Barker & Co., (my friend, Mr. C. M. Saxton, having been formerly my partner,) I can cordially commend my successors to the Agricultural public, with the assurance that the cause for which Mr. Saxton and myself have for years conjointly and separately labored, will not suffer by this transfer.

NEW-YORK, Oct. 20, 1859.

A. O. MOORE.

Oct. 27—w&mlt

FOR SALE—The Two-year-old SHORT-HORN BULL "ORION," got by "Squire Gwynne 2d," 1101, out of "Fillpal IV," &c., &c. See American Herd Book.

The subscriber offers him for sale upon reasonable terms, having another young bull not so nearly connected to his stock.

He took the second prize in his class at the State Fair at Albany. Any one wishing to purchase, or desiring pedigree or further particulars, may address

A. M. UNDERHILL,

Nov. 1—w2tm2t Clinton Corners, Dutchess Co., N. Y.

ILLINOIS FARMS!

Three thousand acres of superior prairie lands, seven hundred under cultivation, and so located as to make fifteen or twenty small farms. Two railroads are within 5 miles of the tract, and the distance from Chicago is eighty-five miles. Bargains are offered to parties wanting farms in the west for their own occupancy. For particulars address JOHN W. HEDENBERG, P. O. Box 1462.

Nov. 1—mlt*

St. Louis, Mo.

NEW AND VALUABLE BOOKS—FOR SALE AT THIS OFFICE.

FARM DRAINAGE. The Principles, Processes and Effects of Draining Land, with stones, wood, plows, and open ditches, and especially with tiles; including tables of rain-fall, evaporation, filtration, excavation, capacity of pipes; cost and number to the acre of tiles, &c., &c. By Henry F. French. Price \$1.00.

HINTS TO HORSE KEEPERS: A Complete Manual for Horsemen; embracing how to breed, buy, break, use, feed, physic, groom, drive and ride a Horse, together with a chapter on Mules and Ponies. By the late Henry William Herbert (Frank Forester.) Beautifully illustrated. Price \$1.25.

A PRACTICAL TREATISE ON THE HIVE AND THE HONEY-BEE. By L. L. LANGSTROTH, with an introduction by Rev. Robert Baird, D. D. Third edition, revised and illustrated with seventy-seven engravings. Price \$1.25.

Read the Proposal at the foot of this.

THE NEW-YORK OBSERVER,
The Largest Newspaper in the World.
National, Conservative, Religious,
Belonging to no Party in Politics and to no Sect in Religion.

Edited by a corps of Clergymen and Laymen of large experience, having the most eminent Writers of the day among its regular contributors, and a Foreign Correspondence unrivalled.

It is the most complete

FAMILY NEWSPAPER

That can be made; published weekly on a large DOUBLE sheet, so that it may be separated, making

TWO DISTINCT PAPERS,

Each perfect in itself. No other newspaper is made upon this plan.

The SECULAR sheet contains a full report of all the News of the Day; a vast amount of miscellaneous reading; poetry and prose; an AGRICULTURAL page, conducted by a practical and educated agriculturist; a COMMERCIAL page, edited by a gentleman distinguished for his acquaintance with the financial world—giving the latest reports of the MONEY, PRODUCE, and CATTLE MARKETS, BANK STOCKS, &c.; a MISCELLANEOUS department, embracing scientific, literary, and artistic matter, with tales, anecdotes, biography, travels, questions and answers, for the instruction and amusement of the family and social circle.

The RELIGIOUS paper is filled with the choicest original and selected matter in every department of Christian Literature; making a delightful SABBATH companion, and furnishing a volume of interesting and instructive reading every week. The best and most accomplished Clergymen, Presidents and Professors in our Colleges and Seminaries, constantly contribute to its pages. One of its chief features of attraction is a Summary of Intelligence from

ALL RELIGIOUS DENOMINATIONS;

A feature peculiar to the OBSERVER, and highly valued by Christians who wish to know what is doing in other communions than their own.

The grand object of the NEW-YORK OBSERVER is to promote "peace on earth and good-will among men." For this end it seeks to advance all those principles which make the UNION OF THE STATES more firm and permanent; it cultivates harmony and good feeling among ALL DENOMINATIONS of Christians; and is a fearless defender of the rights of all men, under the Constitution of the United States and the Word of God.

In its Editorial discussion, its foreign and domestic correspondence, the vigor and beauty of its original contributions, and the attractions of its several departments in science, literature, art, agriculture and commerce, the NEW-YORK OBSERVER is determined not to be surpassed by any newspaper in any country.

Resisting radicalism in Church and State, promoting revivals of pure religion and every wholesome moral reform, on Scriptural and rational principles, discarding and opposing all schisms, humbugs, fanaticism, and every scheme of infidelity, socialism, and vice, the NEW-YORK OBSERVER designs to be a safeguard of virtue, law and order, a champion of truth and righteousness in the earth.

It is the CHEAPEST newspaper of its class that is published. Both the secular and religious papers are sent for two dollars and fifty cents, in advance. Two families uniting in taking it, as many do, will each get a complete newspaper for \$1.25 !!!

PROPOSALS FOR SOLICITING SUBSCRIBERS.

To any one who will obtain new subscribers for us, we will pay the following liberal commissions:—For five new subscribers paying in advance, fifty cents each; for more than five and less than ten, seventy-five cents each; for ten or more, one dollar each. We will send a copy of our Bible Atlas, with colored maps, on paper of large size and best quality, to each new subscriber, on the receipt of his name and payment for one year.

If you cannot give personal attention to this work, will you place this advertisement in the hands of some clergyman or layman who will take an interest in it, to whom we will give the commissions mentioned above.

We will send specimen numbers without charge.

Your early attention is solicited to this subject, and we shall be happy to hear from you immediately, as we desire to offer the paper at once to every family in the United States.

SIDNEY E. MORSE, JR., & Co.,

Editors and Proprietors.

Oct. 27—w2tm1t

37 Park Row, New-York.

THE PROBLEM SOLVED!



COOK'S
Portable Sugar Evaporator,
 FOR making Maple Sugar, or Sugar from the Chinese Sugar Cane,

Patented June 22d, 1858,

Awarded the **FIRST PREMIUM** at the Illinois State Fair, September, 1859.

Also the **FIRST PREMIUM** at the United States Fair at Chicago, September, 1859.

Also the **FIRST PREMIUM** at the Ohio State Fair at Zanesville, September, 1859.

Also the **FIRST PREMIUM** at the Wisconsin State Fair at Milwaukee, September, 1859.

Also the **FIRST PREMIUM** at the New-York State Fair at Albany, October, 1859.

And the First Premium over every Machine ever Competed with.

The failure of a multitude of experiments by our most scientific men in crystalizing the syrup made from the Chinese Cane, has forced the public mind into the belief that it was an impossibility. The cause of the failure was the existence of a waxy substance in the cane juice, which could not be removed by any known process. But

THIS DIFFICULTY IS NOW OVERCOME.

Mr. Cook, about eighteen months ago, made the discovery that a *very rapid* evaporation of the cane juice, combined with an immediate removal of the syrup from the action of heat, not only extracted this waxy substance, but secured a perfect crystalization of the saccharine matter in the cane. The result of this discovery is the invention of his Evaporator illustrated by the cut above; and this is

The only Evaporator upon which Sorghum Sugar has yet been made!

It consists of a pan of protected copper or galvanized iron, crimped into folds with the alternate ends turned down, forming a transverse channel about five inches wide, and one and a half inches deep. This is placed over a sheet iron fire box lined with brick, and suspended upon rockers.

From a tub at one end the juice flows in a continuous stream through the channel, and runs off at the other end of the Evaporator in a clear, honey like syrup, occupying in its passage

ONLY 20 TO 30 MINUTES!

The object of the rockers is to accelerate or retard the flow of the juice as occasion demands. For making sugar, reduce the syrup to a waxy consistence, and set it aside in a warm room from 2 to 6 days to granulate; then put it into barrels with holes in the bottom, and set in a warm place to drain from 6 to 10 days.

The Evaporator is a

SELF CLEANSER,

requiring no **CHEMICALS** to clarify the syrup, a desideratum never before attained in the manufacture of sugar.

FOR MAKING MAPLE SUGAR

the Evaporator has no equal. It makes a remarkably white sugar, with more perfect crystals than can be made in the old way, and entirely dispenses with the "stirring off" operation, the process of manufacture being the same with that of the cane.

Directions for Cultivating and Working Chinese Sugar Cane.

1. Secure good seed.
2. Drill in rows 3 or 4 feet apart, putting in three or four

times as many seeds as would be required in corn planting. This secures an earlier maturity and a better percentage of sugar than if planted thin and allowed to grow large.

3. If the cane does not ripen before the frost, cut it up and allow it to lay upon the ground a day or two to dry the blades and husks. Then haul, strip and top it, laying it in piles covered sufficiently to prevent freezing and thawing. In this situation it may be kept a long time. Sugar is readily made from *green cane* thus secured.

4. Frozen cane yields from 10 to 20 per cent. more sugar than if worked before freezing; but frozen cane must not be allowed to thaw again.

Cook's Evaporators evaporate from 2 to 6 barrels of juice per hour, according to size. Prices \$35 to \$52.

Address **BLMYER, DAY & CO.,**

Oct. 13—w&mlt Mansfield, Ohio.

EMERY BROTHERS, 62 & 64 State-st., Albany, Agents.

CHOICE FOWLS.—A limited number of each of the following varieties to spare, at low prices: Grey Dorking, White-faced Black Spanish, Earl Derby and other Games, and Aylesbury and Rouen Ducks. All warranted to be well bred. Also a few Improved Domestic Turkeys.

Send for Priced Circular. **D. S. HEFFRON,**

Oct. 6—wtfm3t Utica, N. Y.

BERKSHIRE PIGS of pure breed, and at a low price, for sale by **WM. J. PETTEE,**

Oct. 6—w&mtf. Lakeville, Conn.

IMPROVED SHORT HORNS.—The subscriber, wishing to reduce his herd in numbers, offers for sale at moderate prices several excellent **COWS** with good pedigrees.

Apply at Ellerslie Farm, one mile south of Rhinebeck Station, Hudson River Railroad.

Sept. 22—w&mtf. **WILLIAM KELLY.**

GRAPEVINES.—All the best Native Vines at low prices. One good Plant each of the Anna, Delaware, Diana, Concord, Hartford Prolific, Louisa, and Rebecca, carefully packed for \$5.

A large lot of Childs' Superb, two years old, to spare.

Send for Circular. **D. S. HEFFRON,**

Oct. 6—w&mtf. Utica, N. Y.

THOROUGH BRED AYRSHIRES.

"Rosa Lee," 3 years old, color Red and few white spots, bred from stock Imported by Capt. Nye. Price \$100.

"Lucy Neal," 4 years old, color White with small red spots, bred from same stock. Price \$150.

"Effie," 4 years old, color dark red and white, bred by stock Imported by Wm. Watson, Esq. Price \$175.

Rosa Lee is in calf by Young "Malcolm"—the others by Young Kelburn. These animals combine the blood of several different importations of distinct strains of blood, and are desirable animals. For sale by

ALFRED M. TREDWELL,

Sept. 29—w2tm2t. Madison, Morris Co., N. J.

BYRAM'S POTATO DIGGER.

We have improved this implement so that it is easily converted into a

Double Mold Board Plow,

which makes it the most useful implement in use. As a Potato Digger it has no equal. Price of combined machine \$8. Manufactured and sold by

GRIFFING BROTHER & CO.,

Aug. 4—w8tm3t. 60 Cortland St., New-York.

OPPOSITION FARE REDUCED
MERCHANTS' LINE OF STEAMBOATS,
BETWEEN NEW-YORK AND ALBANY

The Steamer **KNICKERBOCKER**, Capt. W. B. Nelson, leaves the foot of Robinson-st., New-York, every Monday,

Wednesday, and Friday, at 6 o'clock, P. M.; the Steamer **HERO**, Capt. J. W. Hancock, every Tuesday, Thursday, and Sunday. Returning, will leave the Steamboat Landing, Albany, daily, Saturdays excepted, at 7 o'clock P. M.

Travelers will find it to their interest in calling at the Office of the Agents of this company, before engaging passage elsewhere.

Freight carried at reduced rates and forwarded promptly. **ELI HUNT, Agent**—Office on the Wharf, New-York.

G. W. STEVENS, 282 Broadway, Albany

March 10, 1859—w&m9ms

ANDRE LEROY'S NURSERIES, AT ANGERS, FRANCE.

The proprietor of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public, that his Catalogue of *Fruit and Ornamental Trees, Shrubs, Roses, Seedlings, Fruit Stocks, &c.*, for the present season, is now ready and at their disposal. Apply as heretofore, to

F. A. BRUGUIERE, 51 Cedar-Street,
Oct. 6—wom3m—m3t. New-York.

FARMERS AND GARDENERS

sending their P. O. Address to us will receive by mail, gratis, our *ILLUSTRATED ALMANAC* for 1860, and information concerning Agricultural Implements and Fertilizers. Send us the name and P. O. address of good farmers in your town. GRIFFING, BROS. & CO.,

Oct. 13—w8tm2t 60 Cortlandt-st., New-York.

HUDSON RIVER ANTWERP RASPBERRY PLANTS, \$2.50 per 100; \$20 per 1000.

Lawton & Newman's Thornless Blackberry Plants \$6 per 100. DAVID KETCHAM,
Oct. 1—mtf. Milton, Ulster Co., N. Y.

LAWTON BLACKBERRY.—To

obtain the original variety for field or garden culture, address WM. LAWTON, New Rochelle, N. Y.

Circulars, with ample directions, will be forwarded to all applicants, free. Aug. 1—m12t.

HAY PRESSES of all kinds and

sizes, both for Hand and Power, at
A. F. MAYHER & CO.'S
Agricultural and Seed Store, No. 54 Vesey Street, N. Y.
N. B.—Remember 54 Vesey Street.
Aug 11—w16tm3t.

A NEW PENNSYLVANIA AGRICULTURAL AND HORTICULTURAL MONTHLY PERIODICAL,

"THE FARMER AND GARDENER."

One of the cheapest and best Rural papers ever published in this State. A large and profusely illustrated Royal Octavo, with Agricultural, Horticultural, Botanical, Veterinary, Apian and Domestic Departments, ably sustained.

Send for a Specimen Copy. One dollar per year (in advance.) A. M. SPANGLER, Ed.,
633 Market Street, Philadelphia.

\$700, in premiums for Subscriptions and Essays.
Sept. 29—w2tm2t.

PORTABLE CIDER MILLS AND PRESSES.

We have all the best and latest improved Cider Mills and Presses—also Wine Presses, Cheese Presses, Hay Presses, &c., &c.

A. F. MAYHER & CO.,
No. 54 Vesey Street, New-York.

New S and, 54 Vesey Street.
Aug 11—w16tm3t.

GUANO!—The superiority of Phosphatic

over Ammoniacal Fertilizers in restoring fertility to worn out lands, is now well understood. The subscribers call the attention of Farmers to the *Suan Island Guano*, which, for richness in phosphates and organic matter, and its solubility, is unsurpassed.

For sale at \$30 per ton of 2000 lbs. A liberal discount will be made by the cargo.

Circulars, with directions for use, may be had on application at our office. FOSTER & STEPHENSON,
65 Beaver-st., New-York.

Agents for the "Atlantic and Pacific Guano Co."
June 26—w26tm6t

HORSE POWERS AND THRESHERS,

AND COMBINED THRESHERS AND WINNERS, Saw Mills, Fan Mills, Corn Mills, Corn Shellers, &c. &c., of the best and latest improved kinds. We have all patents of both Tread and Lever Horse Powers and Threshers in store. Farmers in want of any thing in the Agricultural line, are requested to give us a call before purchasing elsewhere. Send for a circular.

A. F. MAYHER & CO.,
Agricultural Warehouse, Machinery Depot and
Seed Store, No. 54 Vesey Street, New-York.
Between Broadway and Greenwich St., north river side of city.
Remember No. 54 Vesey Street.
Aug 11—w16tm3t.

THOROUGH BRED DEVONS.

Annette (1161, 3d vol. Devon Herd Book) 3 years old, with helper calf sired by Imported Duke of Devonshire.

Imported Helper "Aurora," with Bull calf sired by Imported Duke of Devonshire.

Venus (1104) with Bull calf by Imported Duke of Devonshire.

Yearling and two year old Heifers. For sale by
ALFRED M. TREDWELL,
Sept. 29—w2tm2t. 45 Fulton street, New-York.

HORSE POWERS AND THRASHERS,

Saw Machines with Saw. "Hickok's" Cider Mill and Press. Dog Powers, &c. Sold by

GRIFFING BROTHER & CO.,
Aug. 4—w8tm3t. 60 Cortland St., New-York.

EXCELSIOR FAN MILLS

will clean Seventy-five Bushels of wheat per hour; also GRANT'S, CLINTON'S, MAYHER'S, and all the best and latest improved Mills of the age.

A. F. MAYHER & CO.,
Agricultural and Seed Store, No. 54 Vesey St., New-York.
New Stand, No. 54 Vesey Street.
Aug 11—w16tm3t.

GRIFFING'S EXCELSIOR FAN MILL

will clean 60 bushels per hour. All who use it acknowledge it to be the best Fanning Mill in use. Price \$25. Manufactured for and sold by

GRIFFING BROTHER & CO.,
Aug. 4—w8tm3t. 60 Cortlandt St., New-York.

FARMERS & MILLERS TAKE NOTICE.—

We have just introduced a new mill,

Which is the "Neplus Ultra" of Mills,

For grinding feed of all kinds, also for flouring. It is portable, and will grind with an ordinary Two Horse Power, from five to seven bushels of feed per hour perfectly.

It is called "Lyon's & Phillips' Patent," and is warranted to work satisfactorily, or it can be returned at our expense. It is no humbug, but a "Simon pure article," and every Farmer and Miller that uses it will certify that it is just the article represented.

Price for Feed and Corn Cob Mill,..... \$100 00
" Feed and Corn and Flour Mill,..... 115 00

Weight 450 pounds, and requires a space of four square feet. For further particulars address,

PEASE & EGGLESTON,
Aug. 4—w10m4t. Albany, N. Y.

Just Published, one vol. 12 mo.—\$1.25.

MILCH COWS AND DAIRY FARMING;

Comprising the Breeds, Breeding, and Management, in Health and Disease, of Dairy and other Stock; the selection of Milch Cows, with a full explanation of Guenon's Method, the Culture of Forage Plants, and the production of Milk, Butter and Cheese: embodying the most recent improvements, and adapted to Farming in the United States and British Provinces. With a Treatise upon the Dairy Husbandry of Holland; to which is added Horsfall's System of Dairy Management. By CHARLES L. FLINT, Secretary of the Massachusetts Board of Agriculture; Author of "A Treatise on Grasses and Forage Plants," &c. Liberally Illustrated.

The above valuable work—the best, we have no hesitation in saying, yet issued upon the subject—is for sale at the office of this paper.

L. TUCKER & SON.

Albany, Dec 2—w&mtf.

Downing's Fruit and Fruit Trees,

JUST PUBLISHED, and for sale at this office—sent by mail postpaid, at \$1.75.

Farmers should keep their accounts carefully, and know whether each year's operations will make them richer or poorer!

FARM BOOK-KEEPING.—By W. D. COCHRAN of Detroit. Sets—comprising *Full Instruction* in this excellent system, a careful reading of which will enable an unpractised hand to understand it fully,—also *Day Book* and *Ledger*—for sale at this office—price by mail, post-paid, \$2.30. L. TUCKER & SON.

Agricultural Books,

Of all kinds, for sale at the Office of the Co. Gentleman

Now Ready—Single Copies sent by mail, post-paid, for Twenty-five cents—ONE DOZEN COPIES, post-paid, for Two Dollars. Agents Wanted.

**THE ILLUSTRATED
ANNUAL REGISTER OF RURAL AFFAIRS,
For 1860.**

THE SIXTH NUMBER of this work is now ready, and presents features of no less attractiveness and value than its predecessors. The following abstract of its contents, together with the fact that they are ILLUSTRATED by no less than ONE HUNDRED AND SEVENTY-EIGHT ENGRAVINGS, will afford better evidence of this than anything the Publishers can say.

I. ORNAMENTAL PLANTING—THIRTY-SIX ENGRAVINGS.

1. Requisites for a Home.
2. Various Modes of Grouping.
3. Plans of Garden and Ornamental Grounds.
4. Various Details—Lawns—Walks—Rustic Objects.
5. Trees—Hints in Saving Expense.

II. COUNTRY DWELLINGS—TWENTY-FIVE ENGRAVINGS.

1. General Considerations.
2. Working-Men's Cottages—Three Original Designs by GEO. D. RAND.
3. Farm Houses—Five Original Designs with Ground Plans, &c., by the same Author.

* * This is a Chapter which will prove serviceable especially to those who wish suggestions as to neat and inexpensive structures for practical purposes, which with some taste and considerable extent of accommodations, combine great convenience of interior arrangement.

III. HEDGES—THIRTEEN ENGRAVINGS.

1. Different Plants for Fencing Purposes.
2. Training and Pruning for first Four Years.

IV. FENCES AND FENCE MAKING—FIFTEEN ENGRAVINGS.

1. Post Fences, Modes of Construction and Setting.
2. Hurdles and Cheap Fences.

V. FARM GATES—FIFTEEN ENGRAVINGS.

1. Difficulties to Contend with.
2. Hanging the Gate.
3. Constructing and Hinging it.

VI. BARNs AND STABLES—TWENTY-FIVE ENGRAVINGS.

1. A Horse Barn built of Brick.
2. A Barn for a Small Farm.
3. Plan of Stables for Horses and Cattle.
4. Stalls for Horses—Four different forms.
5. Stalls for Cattle—Means of Tying.
6. Cattle and Sheep Racks.

VII. IMPLEMENTS OF TILLAGE—TWENTY-ONE ENGRAVINGS.

1. Improvements in Plows and Harrows.
2. Plowing and Subsoiling.
3. Ditching Plows.
4. Implements for Surface Tillage.

VIII. OTHER NEW IMPLEMENTS—SIX ENGRAVINGS.

1. Gladding's Hay Fork.
2. Willard's Root Slicer.
3. Joice's Star Mill.
4. Hickok's Stalk Cutter.
5. Allen's Potato Digger.
6. Labor by Horse Power.

IX. FRUITS AND FRUIT CULTURE—SEVEN ENGRAVINGS.

1. Plant Apple Orchards.
2. Transplanting Small Trees.
3. Apples for Market.
4. Select Fruits for Virginia, New-England, Wisconsin—Failures in the West.
5. Ripening Pears—Sorts for Market—Hardy varieties.
6. Select List of the Newer Pears—Dwarfs.
7. Plums—The Blackberry—Strawberries—Grapes—Insects on the Apple.
8. Sending Grafts by Mail—Root-Grafting.

X. SUPPLEMENTARY LIST OF NURSERIES.

XI. RURAL MISCELLANY—TWELVE ENGRAVINGS.

1. General Economy—Razor Strops—Marking Bags—Bad Water—Fuel—Painting Tools—Cracks in Stoves, &c.
2. Dairy Economy—Winter Butter—Damp Stables—Wintering and Stabling—Fodder, &c.
3. Rules for Business, with Numerous Hints.
4. Grafting Knives.
5. Transplanting in Autumn and Spring.
6. Early Melons and Squashes.

7. Wool Table.
8. Cleaning Seed Wheat.
9. To Make Farming Profitable.
10. Packing Trees for Transportation.

XII. ADVERTISEMENTS.

This, preceded by the usual Calendar pages and Astronomical Calculations, forms a book which is certainly cheap at its retail price, while the Publishers, in order to promote its extensive circulation, are prepared to offer the most liberal Terms for its introduction in quantities, either to Agents, Agricultural Societies, Nurserymen, Dealers in Implements and Seeds, or any others who take an interest in the dissemination of useful reading, and in the promotion of Rural Improvement.

Address all orders or inquiries to the publishers,
LUTHER TUCKER & SON,
Oct. 1, 1859. ALBANY, N. Y.

Contents of this Number.

The Farm.	
Fall Plowing,	329
Maple Leaf-Cutter, by A. F.,	330
New-York State Fair,	331
Premiums on Stock,	332
Evening Discussions at New-York State Fair,	335
Culture of Grasses,	335
Manures—Best Kinds—Best Modes of Application, ..	336
How to Make Good Cider,	337
"Unfavorable Seasons."—Cold, Wet Springs,	337
Steam Plows at Chicago,	338
Vermont State Fair,	338
John Johnston and his Farming, by HAWK EYE,	339
Harvesting and Curing Beans, by B.,	341
The Highland Society's Dinner,	342
Top-Dressing Lands, by W. BACON,	343
Snap Dragon—How to Destroy it, by A. RENS. Co. FARMER,	343
The Cultivator for 1860,	344
Foreign Editorial Correspondence,	345
The County of Kent,	345
Farming at Macknade, near Faversham,	345
Cost of Cultivation, &c.—Stock Feeding,	345
The Hop Crop and the Tax upon it,	347
Propagation and Planting,	347
Expenses and Prices,	347
Cultivation of the Hop,	347
The Kilns for Hop Drying,	348
Harvest Home and its Sports,	348
Wheat and Chess,	349
Inquiries and Answers,	351
Connecticut State Fair,	353
Mowers and Reapers,	353
Notices of New Books,	353
Chester Co. (Pa.) Fair,	353
Notes for the Month,	354
Corn Huskers, by J. W. LEQUEAR,	356
Kirby's Improved Mower and Reaper, by D. M. OsBORNE,	357
The Grazier.	
Black Leg in Calves, by AMOS BALLANCE,	343
Spanish Merino Ewes,	350
Horticultural Department.	
Fruit Grower's Society of Western New-York,	330
No. XX.—The Parasitic Destroyer of the Curculio, by ASA FITCH,	340
American Grapes,	350
Domestic Economy.	
Recipes for Lemon Pies, by Mrs. C. S. D.,	339
Lemon Pie, No. 3, by Mrs. C. S. D.,	339
Lemon Pie, No. 4, by Mrs. C. S. D.,	339
Making Soap, by D. F. B.,	342
Family Recipes, by M. S. M.,	342
Lemon Pie—No. 5, by NANCY,	356
Delicious Corn Bread, by NANCY,	356
Dairy Husbandry.	
Cabbages for Milch Cows,	339
Churning Milk for Butter,	339
How to Keep Milk, by A. B. DICKINSON,	343
The Apiary.	
Profits of Bees, by A. W. FORD,	350
Illustrations.	
Spanish Merino Ewes, .. 350 Corn Huskers,	357
Curculio Parasite,	340

One Vol. 12 mo.—price 75 cents.

LETTERS ON MODERN AGRICULTURE,
by Baron Von Liebig—just published, and for sale at this office—price 75 cents—sent by mail, post-paid, for \$1.